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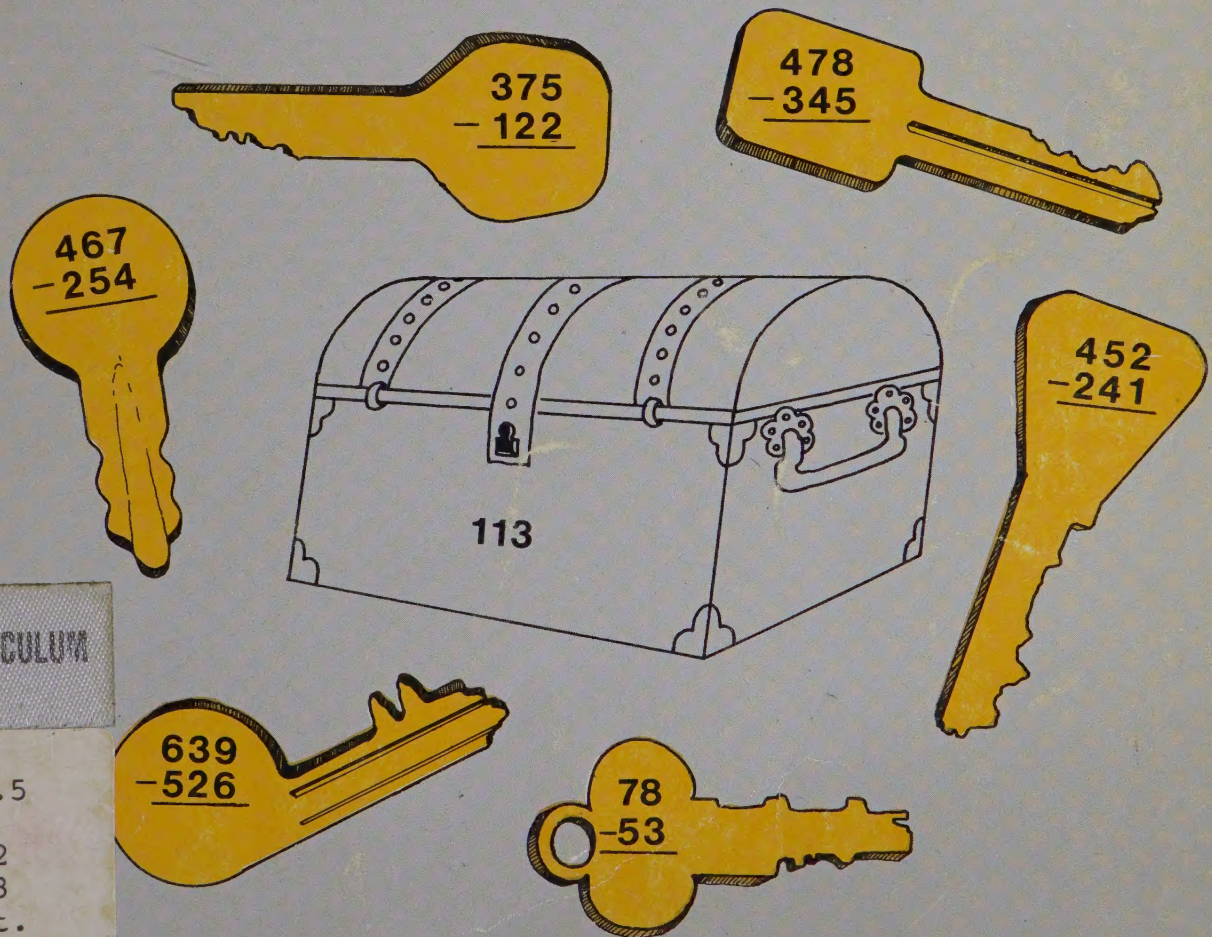
starting points in mathematics 3

blackline masters

Which key opens the treasure?



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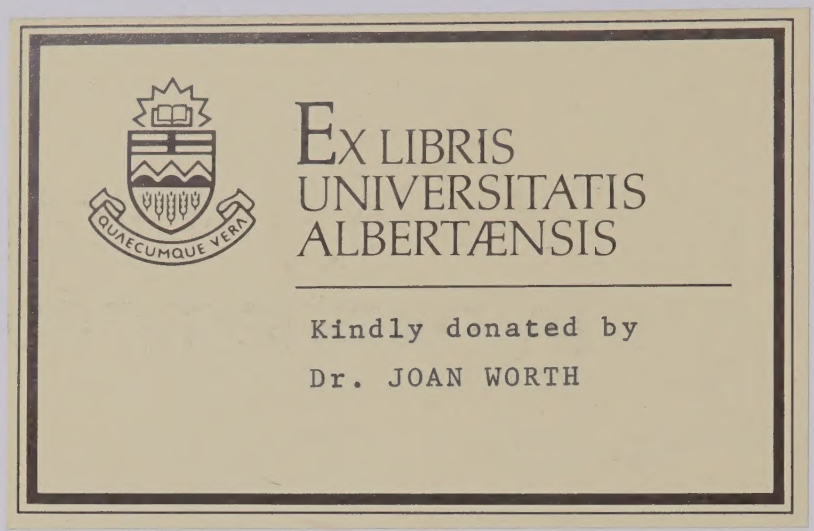
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Worth

Blackline Masters for

starting points in mathematics

Level 3

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To the Teacher

This book is designed for use with *Starting Points in Mathematics 3 Revised* and provides the following.

Masters 1 to 64 provide reteaching lessons for key lessons in the student text. Masters 65 to 80 provide problem-solving extensions for the problem-solving lessons in the student text. Masters 81 to 96 provide enrichment lessons for each unit. The Contents on page T2 and T3 suggest the corresponding student text page with which each reteaching and problem-solving master may be used. The student text page also appears at the top of each of these masters. The corresponding unit suggested for each enrichment master is identified on the Contents page and again on the top of the master. It must be kept in mind, however, that the most appropriate time for use of each master is best determined by the teacher for his or her particular class.

On the reteaching masters, one or more answers are provided to allow students to determine whether they are proceeding correctly. For any exercise with a domino beside it, students can find a corresponding domino with the answer at the bottom of the page.

Before assigning independent work, the teacher should make certain that the directions are understood by the students. When a page has been completed, the teacher and the students should discuss and correct the responses together. Better learning will occur if the correction can take place as soon as possible after the page is completed.

Contents

Teacher's Notes

1 Before assigning the page, make sure that your students understand the directions for the cartoon activity.

2 It may be helpful for some students to draw pictures to show each of the subtraction facts on the page.

3 This page provides practice in basic addition facts. Make sure students understand how to complete the addition triangles at the bottom of the page.

4 Some students may find it helpful to draw pictures to show each subtraction fact.

5 This numeration page provides practice in ordering numbers to 99.

6 In doing this numeration page, students get extra practice in recognizing place value through hundreds.

7 This page provides practice in writing numbers in standard form and expanded form, as well as in writing the word names for numbers through 999.

8 This page serves as a preliminary to addition with regrouping. It provides practice in regrouping from ones to tens and from tens to hundreds.

9 Review the $>$ and $<$ signs before assigning this page.

10 After completing the "Go shopping" portion of the page, students can make change for each item purchased as an additional activity.

11 The use of manipulative materials, such as paper plates, which can be cut into parts, will be helpful to the students.

12 The purpose of this page is to practise telling time to 5-minute intervals on a dial clock.

13 The addition rectangles on the bottom of the page review expanded notation as well as provide practice in addition.

14 Make sure students understand the directions for the addition game before assigning this page.

15 Without naming the associative property, you may wish to point out that grouping addends can make addition simpler.

16 The purpose of this page is to provide practice in addition with regrouping from tens to hundreds.

17 This page provides practice in addition of three-digit numbers with two regroupings.

18 On this page students practise adding amounts of money. Two regroupings are required.

19 After the students have put together their prisms, you can define faces, edges, and vertices and have the students count them.

20 On this page a polygon is defined. Have students name some polygons as they complete the page.

21 This page provides practice in subtraction of three-digit numbers. No regrouping is required.

22 This page serves as a preliminary to subtraction with regrouping. It uses pictures to provide practice in regrouping from tens to ones.

23 After students have completed the subtraction squares, discuss with them why the difference in the corner box is a "magic" difference.

24 On this page students practise subtraction of three-digit numbers in which regrouping from hundreds to tens is required.

25 The purpose of this page is to provide drill in subtraction where more than one regrouping is necessary.

26 Make sure that students understand the regrouping exercises before you assign the subtraction problems.

27 On this page students subtract money amounts. Two regroupings are required.

28 Ask the students to pick appropriate measures for each of the objects at the bottom of the page.

29 Have the students tell which thermometers show the temperatures on hot days and which on cold days.

30 This page provides practice in telling time to the minute on a dial clock.

31 On this page students use pictures to name decimals to tenths. You may wish to put each decimal number in a place-value chart.

32 You may wish to have students use the $>$ and $<$ signs to compare each decimal.

33 After writing each decimal, students could place each in a place-value chart.

34 On this page students add decimals written as tenths. Regrouping from tenths to ones is required.

35 Students can show each multiplication exercise on this page as an array and on the number line.

36 On this page students use arrays to write multiplication sentences.

37 The purpose of this page is to provide practice with basic multiplication facts.

38 This page serves as an introduction to division. Have students cross out fish as they "share" them among the tanks.

39 Students who need extra practice can draw pictures for each of the exercises on this page.

40 Students having difficulty with division can draw pictures and ring groups for each exercise.

41 Draw attention to the pictures so that students will relate multiplication and division.

42 Using graph paper and cubes will help students understand the concepts of area and volume.

43 The purpose of this page is to teach students how to read and interpret a pictograph. Emphasize that each picture on this graph represents five houses.

44 On this page students read and interpret information given on a bar graph.

45 Emphasize that in an ordered pair the "over" number comes first and the "up" number comes next.

46 In doing this numeration page students get practice in recognizing place value through thousands.

47 On this page students write expanded numbers and standard numbers for numerals through thousands.

48 You may need to review the $>$ and $<$ signs before assigning this page.

49 Point out that the numerator tells how many are shaded and the denominator tells how many are in the set.

50 The purpose of this page is to provide practice in addition of three-digit numbers with two regroupings.

51 On this page students complete sales receipts by recording prices and adding dollars and cents. Regrouping is required.

52 This page provides practice in addition with three addends. Two regroupings are required.

53 Students practice regrouping from tens to ones and from hundreds to tens before solving subtraction problems that require regrouping.

54 On this drill page, students find the difference of two three-digit numbers. Regrouping from hundreds to tens and from tens to ones is required.

55 The use of play money in completing the chart will be helpful for some students.

56 Demonstrate the checking method shown here using one-digit numbers so that students can see the relationship of the fact families.

57 The purpose of this page is to provide practice in regrouping with zeros. Students solve subtraction problems in which they are subtracting from multiples of 100 and 1000.

58 On this page students subtract decimal numbers where regrouping from ones to tenths is required.

59 On this page students use their knowledge of decimals through hundredths to convert metres to centimetres, and vice versa.

60 Students can use arrays or the number line to show each of the basic multiplication facts on this page.

61 This page provides practice in basic multiplication facts. Students having difficulty can draw arrays to illustrate the exercises.

62 This page provides reinforcement in multiplying by 10 and by 100.

63 Students having difficulty with these division facts may find it helpful to review the concept of sharing.

64 Have the students write the multiplication fact that is used to solve each division fact.

65 Be sure that students understand what they are to do in problems 1 to 3. They are only to choose the picture, not solve the problem.

66 Tell the students that the numbers have been "covered up" by the squares and triangles.

67 Be sure students understand the task. You may wish to go over the example with them.

68 Tell students that there are two identical shapes in each row and that they are to check both of them.

69 Go over the menu with the students to be sure that they can read it and understand it. You may wish to do problem 1 as an oral exercise.

70 Emphasize that students are to choose the most sensible answer for each exercise. When the page has been completed, you may wish to have a group discussion about the reasons for the choices.

71 Point out that the computations have already been set up. Students must choose the proper computation, complete it, and write the answer in the space provided.

72 Emphasize that each of the diagrams at the bottom of the page fits one problem. On the first line they are to write the letter of the appropriate picture; on the second line they are to write the answer to the problem.

73 Allow plenty of time for this page. Some students will have no difficulty, but others may find it challenging. In exercises 4 and 6 the tables are longer than they need to be to give room for wrong guesses.

74 Be sure students understand that they have to decide how they would solve the problem. Tell them that the numbers have been "covered up" by squares and triangles.

75 Next to each problem are three facts. The students are to check the fact that will allow them to complete the problem.

76 You may wish to get a group of the less able readers together and read the story with them.

77 You may wish to watch carefully those students who have trouble with the text lesson.

78 Remind students that some of the problems on this page cannot be solved because there is information missing. In those cases students are to tell what other information is needed.

79 Give the students adequate time to complete this page. You may wish to give them several days.

80 You may wish to discuss the concluding statements when the page is completed.

81 It would be helpful to the students if you explain how to do one maze.

82 Explain to your students that in one picture you are counting by twos, and in the other picture by sixes.

83 Remind students that within any problem each shape represents only one number.

84 Take numbers for shape A and demonstrate Euler's formula.

85 In order to search more quickly, students should start by subtracting ones and then check the number below to see if it is correct before continuing.

86 Discuss time zones using Halifax-Québec flight times.

87 Stress how the decimals must be lined up correctly before adding.

88 This is a good time to introduce prime numbers.

89 It would be helpful to do the first problem with your students to make sure that they can follow the flow chart.

90 Make sure your students understand that some stamps need to be cut to represent the numbers.

91 Egyptian numerals did not make use of place value. Try mixing up the symbols to demonstrate this.

92 If the students are having trouble getting started, complete one of the circles with them.

93 The chart provides enough material for additional questions that use addition and subtraction skills.

94 Ask the students to estimate the lengths of some of the toys on the worksheet.

95 Be sure that your students know how to work the flow chart before they begin the page.

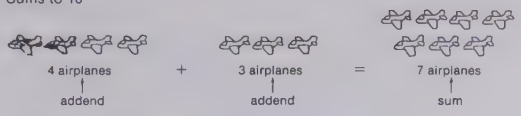
96 The students will use basic skills to solve these number tricks.

NAME

SPM 3 Masters
With pages 2-3

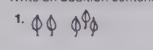
1

Sums to 10

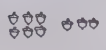


4 airplanes (addend) + 3 airplanes (addend) = 7 airplanes (sum)

Write an addition sentence for each picture.

1. 

2 + 3 = 5

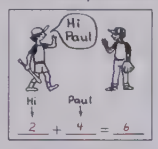
2. 

6 + 3 = 9

Add.

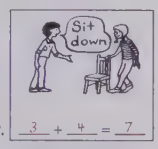
3. 3 + 4 = 7	4. 5 + 3 = 8	5. 7 + 1 = 8	6. 4 + 5 = 9	7. 2 + 3 = 5	8. 5 + 2 = 7
9. 1 + 6 = 7	10. 2 + 5 = 7	11. 3 + 1 = 4	12. 4 + 6 = 10	13. 4 + 4 = 8	14. 8 + 1 = 9

Count the number of letters in each word. Write an addition sentence to show how many letters in all.

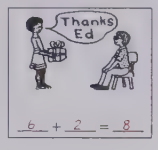


15. 2 + 4 = 6

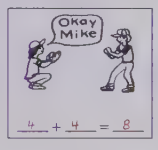
16. 5 + 3 = 8



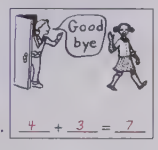
17. 3 + 4 = 7



18. 6 + 2 = 8



19. 4 + 4 = 8



20. 4 + 3 = 7

7 | 7 | 2 + 3 = 5 | 2 + 4 = 6

NAME

SPM 3 Masters
With pages 6-9

2

Minuends to 10

Here are 7 children.
3 swim away.
Cover 3 of the children.
There are 4 children left.

We can write a subtraction sentence. 7 − 3 = 4

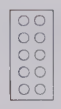
Write a subtraction sentence for each.

1. 

10 dots.
Put an X on 1 dot.
10 − 1 = 9

2. 

10 dots.
Put an X on 3 dots.
10 − 3 = 7

3. 

10 dots.
Put an X on 5 dots.
10 − 5 = 5

4. 

10 dots.
Put an X on 6 dots.
10 − 6 = 4

Subtract.

5. 6 − 1 = 5
6. 10 − 2 = 8
7. 9 − 4 = 5

8. 9 − 5 = 4	9. 8 − 1 = 7	10. 7 − 3 = 4	11. 10 − 4 = 6	12. 6 − 2 = 4	13. 9 − 2 = 7
14. 7 − 5 = 2	15. 5 − 2 = 3	16. 8 − 1 = 7	17. 6 − 3 = 3	18. 8 − 2 = 6	19. 6 − 4 = 2
20. 4 − 3 = 1	21. 9 − 6 = 3	22. 6 − 5 = 1	23. 8 − 4 = 4	24. 9 − 3 = 6	25. 7 − 6 = 1

10 − 1 = 9 | 5 | 2 | 10 − 5 = 5 | 1 | 4

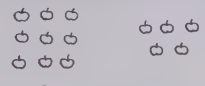
NAME

SPM 3 Masters
With pages 10-11

3

Sums to 18

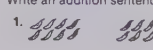
Silvana bought 9 red apples and 5 green apples.
How many apples did she buy in all?



9 + 5 = 14

Silvana bought 14 apples.

Write an addition sentence for each picture.

1. 

8 + 6 = 14

2. 

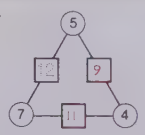
9 + 7 = 16

Add.

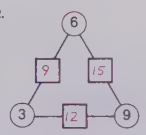
3. 7 + 6 = 13	4. 8 + 3 = 11	5. 6 + 7 = 13			
6. 9 + 5 = 14	7. 7 + 5 = 12	8. 1 + 8 = 9			
9. 9 + 2 = 11	10. 4 + 9 = 13	11. 8 + 4 = 12	12. 7 + 7 = 14	13. 8 + 9 = 17	14. 7 + 5 = 12
15. 8 + 6 = 14	16. 7 + 8 = 15	17. 5 + 6 = 11	18. 6 + 8 = 14	19. 3 + 9 = 12	20. 8 + 5 = 13

Write the sum in each square.

21.



22.



11 | 8 + 6 = 14 | 13 | 14 | 14

NAME

SPM 3 Masters
With pages 12-13

4

Minuends to 18

Here are 18 birds.
3 fly away.
How many are left?

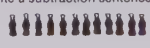
We can write a subtraction sentence.

$$\begin{array}{r} 18 \\ -\ 3 \\ \hline \end{array}$$

There are 15 birds left.

15

Write a subtraction sentence for each picture.

1. 

14 − 2 = 12

2. 

14 − 3 = 11

Subtract.

3. 12 − 6 = 6	4. 15 − 6 = 11	5. 11 − 8 = 3
6. 14 − 5 = 9	7. 16 − 7 = 9	8. 12 − 5 = 7

9. 18 − 8 = 10	10. 13 − 5 = 8	11. 15 − 8 = 7	12. 14 − 7 = 7	13. 12 − 8 = 4	14. 16 − 5 = 11
15. 16 − 9 = 7	16. 18 − 9 = 9	17. 13 − 6 = 7	18. 17 − 7 = 10	19. 16 − 8 = 8	20. 14 − 8 = 6

Complete the subtraction squares.
Find the magic difference in the corner.

21. − →

↓		
16	8	8
9	3	6
7	5	2

22. − →

↓		
17	9	8
8	7	1
9	2	7

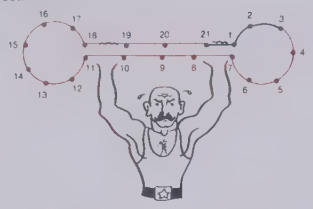
9 | 14 − 2 = 12 | 7 | 6 | 10

NAME

SPM 3 Masters
With pages 24-25 5

Numbers to 99

We can connect the numbers in order.
Finish the dot-to-dot.



Write the missing numerals.

1. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
2. 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

What comes after?

3. 17 18
4. 29 30
5. 41 42
6. 57 58
7. 63 64
8. 72 73

What comes before?

9. 10 11
10. 52 53
11. 77 78
12. 28 29
13. 98 99
14. 30 31

Match.

17 — thirty-five
24 — seventy
35 — twenty-four
51 — seventeen
70 — fifty-one

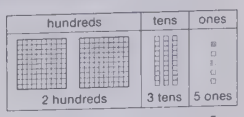
56, 58, 60, 62 | 10 | 17, 18, 22, 23 | 18 | 58 | 28

NAME

SPM 3 Masters
With pages 26-27 6

Numbers to 999

We can show the number two hundred thirty-five this way.



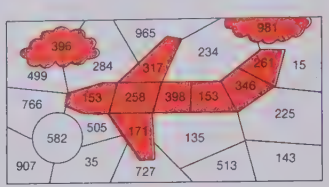
200 + 30 + 5 = 235

Complete the chart.

		hundreds	tens	ones	numeral	word name
1.		2	1	5	215	two hundred fifteen
2.		3	2	4	324	three hundred twenty-four
3.		1	0	8	108	one hundred eight
4.		2	4	0	240	two hundred forty

Shade all the numerals with:

3 in the hundreds place
5 in the tens place
1 in the ones place

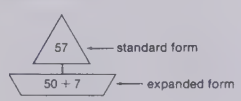


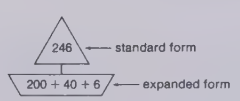
2, 1, 5, 215, two hundred fifteen

NAME

SPM 3 Masters
With pages 28-29 7

Expanded Form





Complete the chart.

	Word name	Standard form	Expanded form
1.	sixty-three	63	60 + 3
2.	seventy-one	71	70 + 1
3.	eighty	80	80 + 0
4.	two hundred thirty-one	231	200 + 30 + 1
5.	five hundred eighty-six	586	500 + 80 + 6
6.	seventy-six	76	70 + 6
7.	three hundred thirty-seven	337	300 + 30 + 7
8.	nine hundred twenty-five	925	900 + 20 + 5
9.	four hundred twenty-five	425	400 + 20 + 5
10.	two hundred forty	240	200 + 40

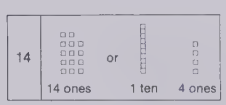
Draw a line to match.

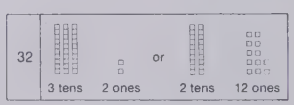
63, 60 + 3

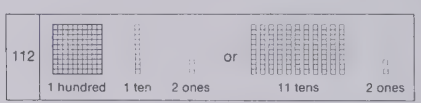
NAME

SPM 3 Masters
With pages 30-31 8

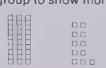
Regrouping







Regroup to show more tens.

1.  or 

3 tens 11 ones — 4 tens 1 one = 41

2.  or 

2 tens 15 ones — 3 tens 5 ones = 35

3. 5 tens 14 ones = 6 tens 4 ones
4. 6 tens 15 ones = 7 tens 5 ones
5. 7 tens 11 ones = 8 tens 1 one
6. 4 tens 13 ones = 5 tens 3 ones
7. 2 tens 14 ones = 3 tens 4 ones
8. 5 tens 16 ones = 6 tens 6 ones
9. 12 tens = 1 hundred 2 tens
10. 16 tens 4 ones = 1 hundred 6 tens 4 ones

2, 15, 3, 5 | 3, 11, 4, 1 | 6, 4 | 1, 2 | 3, 4 | 8, 1

NAME

SPM 3 Masters
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Comparing and Ordering Numbers

Compare 561 and 539.
Compare each digit. Start at the left.

hundreds	tens	ones
5	6	1
5	3	9

same

6 tens is greater than 3 tens, so, 561 is greater than 539.

We can write $561 > 539$.

Circle the greater number.

1. 6 or (8)
2. 7 or (11)
3. 27 or (62)
4. 59 or (60)
5. 246 or (313)
6. (490) or 489

Write > or < to make true sentences.

7. 85 > 36
8. 35 > 29
9. 14 < 24
10. 65 < 71
11. 81 > 18
12. 96 < 99
13. 315 > 217
14. 179 < 180
15. 213 < 218

Robin played 4 games of Rocket Ship Racer. These are her scores.
Put the scores in order from least to greatest.

16. 26, 83, 75, 15 — 15, 26, 75, 83
17. 86, 71, 105, 93 — 71, 86, 93, 105
18. 111, 99, 115, 100 — 99, 100, 111, 115
19. 515, 368, 245, 401 — 245, 368, 401, 515

< > < 15, 26, 75, 83 II 60

NAME

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With page 35 10

Naming Amounts of Money

Ann-Marie is buying a game for four dollars and thirty-five cents.

This shows how much she spends.

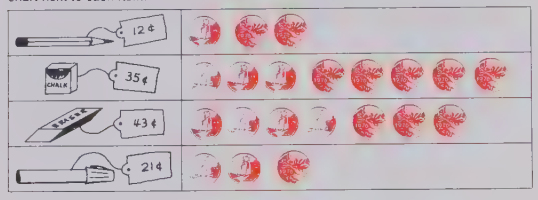
How much?

1. 23¢
2. 33¢
3. $2.12
4. $3.11

Write each amount using numerals.

5. sixty-two cents — 62¢
6. fifty-eight cents — 58¢
7. two dollars and nineteen cents — $2.19
8. six dollars and five cents — $6.05

Go shopping. Draw the correct number of dimes and pennies on the chart next to each item.



236 62¢ $2.19 $2.12

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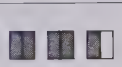
Naming Fractions

Fractions less than 1				Fractions greater than 1
	Number of equal parts	Number of parts shaded	Fraction	
	2	1	$\frac{1}{2}$	 $2\frac{1}{2}$
	4	3	$\frac{3}{4}$	 $2\frac{1}{3}$

How much is shaded?

1.  $\frac{1}{2}$
2.  $\frac{2}{3}$
3.  $\frac{3}{4}$
4.  $\frac{1}{3}$
5.  $3\frac{1}{2}$
6.  $1\frac{1}{2}$
7.  $3\frac{2}{3}$
8.  $2\frac{3}{4}$
9.  $1\frac{5}{6}$

10. Here are 3 ▭'s.
Shade $2\frac{1}{4}$

11. Here are 4 ◯'s.
Shade $3\frac{1}{2}$

$\frac{1}{3}$ $\frac{2}{3}$ $\frac{3}{4}$

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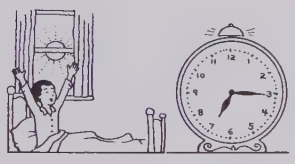
Reading a Clock



This clock shows 7:15.

The long hand shows the minutes.
The short hand shows the hour.

What time is it?

1.  2:30
2.  8:15
3.  6:05
4.  4:45
5.  9:25
6.  10:40

Draw the hands to show the time on each clock.

7.  8:25
8.  4:20
9.  2:05

2:30 4:45

NAME

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Addition, No Regrouping

Add 312 and 236.

Add the ones.	Add the tens.	Add the hundreds.
312 +236 8	312 +236 48	312 +236 548

The sum of 312 and 236 is 548.

Add.

1. 43 + 36 = 79
2. 25 + 72 = 97
3. 15 + 44 = 59
4. 28 + 61 = 89
5. 353 + 246 = 599
6. 421 + 363 = 784
7. 786 + 211 = 997
8. 147 + 420 = 567
9. 434 + 15 = 449
10. 5 + 911 = 916
11. 12 + 456 = 468
12. 353 + 415 = 768

Add to complete each chart.

13.

+	10	6	
500	10	6	516
200	30	2	232
700	40	8	748

14.

+	30	5	
300	30	5	335
400	50	3	453
700	80	8	788

14.

+	20	1	
600	20	1	621
100	40	7	147
700	60	8	768

16.

+	50	6	
700	50	6	756
200	10	1	211
900	60	7	967

599 79 449

NAME

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Addition, Regrouping Ones to Tens

Add 35 and 46.

Add the ones.	Regroup 11 ones as 1 ten 1 one.	Add the tens.
35 +46 11 ones	1 35 +46 1	1 35 +46 81

The sum of 35 and 46 is 81.

Add.

1. 36 + 55 = 91
2. 47 + 28 = 75
3. 58 + 36 = 94
4. 73 + 19 = 92
5. 77 + 13 = 90
6. 24 + 28 = 52
7. 38 + 48 = 86
8. 55 + 27 = 82
9. 214 + 39 = 253
10. 456 + 17 = 473
11. 226 + 145 = 371
12. 528 + 328 = 856

Pick any problem. Add. Find your answer on the game board.
Mark the answer with an X. 3 X's in a row wins.

Game Board

493	894	741
383	691	873
864	831	593

615 + 126 = 741
412 + 319 = 731
158 + 225 = 383
412 + 319 = 731
275 + 318 = 593
249 + 615 = 864
245 + 238 = 483
158 + 533 = 691
356 + 417 = 773

253 91 90

NAME

SPM 3 Masters With page 15

Adding Three Numbers

Evan has 5 goldfish, 6 angelfish, and 8 catfish.
How many fish does he have in all?

Add 5 + 6 + 8.

5 + 6 = 11
11 + 8 = 19

Evan has 19 fish in all.

Complete.

1. 14 + 6 = 18 (10 + 8 = 18; 12 + 6 = 18)
2. 9 + 8 = 17 (10 + 7 = 17; 3 + 3 = 20)
3. 5 + 7 = 12 (10 + 2 = 12; 6 + 6 = 18)
4. 7 + 7 = 14 (10 + 4 = 14; 5 + 5 = 19)

Add.

5. 7 + 5 + 2 = 14
6. 2 + 5 + 7 = 14
7. 3 + 8 + 6 = 17
8. 6 + 8 + 3 = 17
9. 5 + 6 + 4 = 15

10. 5 + 8 + 3 = 16
11. 7 + 8 + 3 = 18
12. 9 + 2 + 4 = 15
13. 4 + 9 + 5 = 18
14. 6 + 8 + 7 = 21
15. 9 + 3 + 1 = 13

Write the sum in each triangle.

16. 9, 20, 5, 6
17. 8, 20, 7, 5
18. 8, 20, 9, 3

12, 18 12, 18 14 16 18

NAME

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Addition, Regrouping Tens to Hundreds

Enza has 246 stamps. Her sister has 381 stamps.
How many do they have in all?

Add 381 and 246.

Add the ones.	Add the tens.	Add the hundreds.
381 +246 7	1 381 +246 27 Regroup 12 tens as 1 hundred 2 tens.	1 381 +246 627

They have 627 stamps in all.

Add.

1. 677 + 281 = 958
2. 592 + 263 = 855
3. 645 + 193 = 838
4. 248 + 381 = 629
5. 150 + 375 = 525
6. 493 + 271 = 764
7. 743 + 191 = 934
8. 340 + 270 = 610

What is the mystery number? Add. Shade the answers in the chart.
The number that is left is the mystery number.

9. 397 + 221 = 618
10. 246 + 590 = 836
11. 212 + 695 = 907
12. 536 + 281 = 817
13. 581 + 176 = 757
14. 453 + 291 = 744
15. 666 + 273 = 939
16. 482 + 321 = 803

618	757	803	836	536
	907	939	744	
		817		

525 618 757 958

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17

Addition, Two Regroupings

Add 327 and 185.

Add the ones.	Add the tens.	Add the hundreds.
$\overset{1}{}$ 327 +185 2	$\overset{11}{}$ 327 +185 12	$\overset{1}{}$ 327 +185 512
Regroup 12 ones as 1 ten 2 ones.	Regroup 11 tens as 1 hundred 1 one.	

The sum of 327 and 185 is 512.

Add.

1. 465 + 258 = 723	**2.** 684 + 137 = 821	**3.** 546 + 285 = 831	**4.** 693 + 159 = 852
5. 345 + 399 = 744	**6.** 286 + 446 = 732	**7.** 379 + 281 = 660	**8.** 489 + 345 = 834

Add. Follow the path of your answers in order from start to finish.

9. 453 + 298 = 751	**10.** 358 + 287 = 645	**11.** 476 + 385 = 861	**12.** 452 + 258 = 710
13. 564 + 268 = 832	**14.** 185 + 488 = 673	**15.** 625 + 275 = 900	**16.** 546 + 385 = 931

START →			
751	601	832	673
645	861	710	900
812	901	611	931 → EXIT

744 723 751 832

NAME

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18

Adding Amounts of Money

Helen spent $6.65 for a game of Monopoly and $2.98 for a game of chess. How much did she spend in all?

Add $6.65 and $2.98.

Helen spent $9.63 in all.

$$\begin{array}{r} \$6.65 \\ +\ 2.98 \\ \hline \$9.63 \end{array}$$

Add.

1. $6.29 + 1.73 = $8.02	**2.** $5.59 + 2.72 = $8.31	**3.** $3.75 + 2.38 = $6.13	**4.** $4.54 + 2.56 = $7.10
5. $1.59 + 1.65 = $3.24	**6.** $2.98 + 3.24 = $6.22	**7.** $4.38 + 4.83 = $9.21	**8.** $1.55 + 2.78 = $4.33

Solve.

9. Mario wants to buy a chess game and a checkers game. How much will they cost in all? $6.23

10. Minta wants to buy a jump rope and a chess game. How much money does Minta need? $4.27

11. Sara wants to buy a Monopoly game and a ball and jacks game. How much money does she need? $7.62

12. Peter would like to buy a jump rope and a checkers game. He has $5.00. Is that enough? yes

$8.02 $6.23 $3.24

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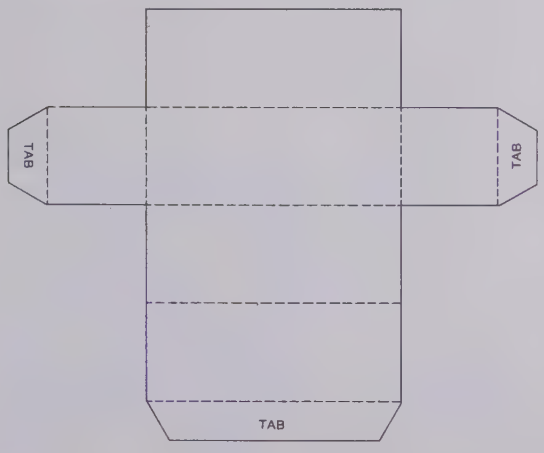
19

Solids

These are prisms.

Make a prism. Cut along the solid lines.
Fold on the dotted lines. Paste the tabs.



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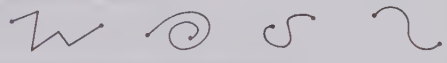
20

Line Segments

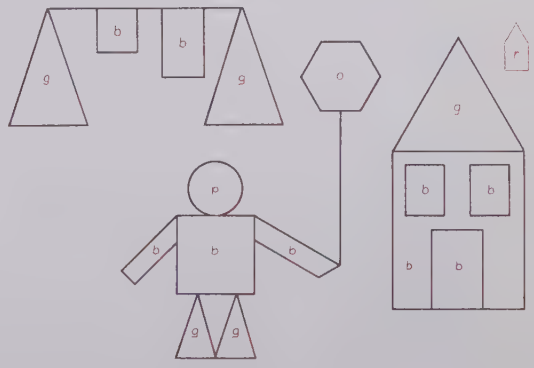
These are line segments.

These are not line segments.



A figure made up of line segments is called a polygon.

Draw a green outline around the polygons that are made up of 3 line segments.
Draw a blue outline around the polygons that are made up of 4 line segments.
Draw a red outline around the polygon that is made up of 5 line segments.
Draw an orange outline around the polygon that is made up of 6 line segments.
Color the figure that is not a polygon purple.



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21

Subtraction, No Regrouping

Subtract 151 from 287.

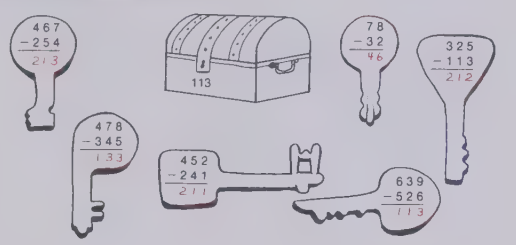
Subtract the ones.	Subtract the tens.	Subtract the hundreds.
287 −151 6	287 −151 36	287 −151 136

The difference between 287 and 151 is 136.

Subtract.

1. 434 −123 311	2. 875 −244 631	3. 768 −514 254	4. 545 −103 442
5. 278 −153 125	6. 362 −151 211	7. 458 −237 221	8. 844 −422 422
9. 457 −216 241	10. 636 −524 112	11. 947 −635 312	12. 828 −716 112

Which key opens the treasure? Subtract.
The key whose difference is 113 is the correct key.



241 311 125

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With pages 82-83

22

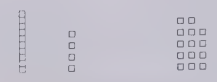
Regrouping

12	or	35	or
1 ten 2 ones	12 ones	3 tens 5 ones	2 tens 15 ones

Regroup to show more ones.

1. 
2 tens 4 ones = 1 ten 14 ones

2. 
3 tens 3 ones = 2 tens 13 ones

3. 
1 ten 4 ones = 0 tens 14 ones

4. 
4 tens 2 ones = 3 tens 12 ones

5. 4 tens 2 ones = 3 tens 12 ones

6. 7 tens 1 one = 6 tens 11 ones

7. 9 tens 6 ones = 8 tens 16 ones

8. 8 tens 4 ones = 7 tens 14 ones

9. 2 tens 7 ones = 1 ten 17 ones

10. 3 tens 5 ones = 2 tens 15 ones

11. 1 ten 6 ones = 16 ones

12. 1 ten 9 ones = 19 ones

3, 12 2, 4, 1, 14

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23

Subtraction, Regrouping Tens to Ones

Subtract 25 from 43.

Regroup 4 tens 3 ones as 3 tens 13 ones.	Subtract the ones.	Subtract the tens.
3 13 4 3 −25	3 13 4 3 −25 8	3 13 4 3 −25 18

The difference between 43 and 25 is 18.

Subtract.

1. 52 −16 36	2. 47 −28 19	3. 86 −49 37	4. 75 −36 39
5. 81 −34 47	6. 36 −18 18	7. 46 −8 38	8. 62 −35 27
9. 85 −9 76	10. 246 −117 129	11. 352 −126 226	12. 745 −236 509

Subtract to complete each chart.
Find the magic difference in the corner box.

13. → ↓

51	33	18
26	17	9
25	16	9

14. → ↓

35	18	17
17	9	8
18	9	9

47 36 76

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24

Subtraction, Regrouping Hundreds to Tens

Subtract 245 from 526.

Subtract the ones.	Regroup 5 hundreds 2 tens as 4 hundreds 12 tens. Subtract the tens.	Subtract the hundreds.
526 −245 1	4 12 5 2 6 −245 81	4 12 5 2 6 −245 281

The difference between 526 and 245 is 281.

Subtract.

1. 435 −261 174	2. 728 −343 385	3. 615 −382 233	4. 525 −131 394	5. 465 −184 281

Here is a code.

196	287	562	191	171	92	193	291	192	197	333	242
H	S	Q	A	D	I	O	G	E	U	N	K

What is Morty Mouse's favorite game? Subtract to find the message.

447 −251 196	226 −134 92	336 −165 171	545 −353 192
H	I	D	E

426 −235 191	617 −284 333	436 −265 171
A	N	D

527 −236 291	654 −461 193
G	O

848 −561 287	743 −181 562	358 −161 197	645 −453 192	444 −253 191	515 −273 242
S	Q	U	E	A	K

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25

Subtraction, Two Regroupings

Subtract 299 from 585.

Regroup 8 tens 5 ones as 7 tens 15 ones. Subtract the ones.	Regroup 5 hundreds 7 tens as 4 hundreds 17 tens. Subtract the tens.	Subtract the hundreds.
7 15 5 8 5 − 2 9 9 6	4 17 15 5 8 5 − 2 9 9 8 6	4 17 15 5 8 5 − 2 9 9 2 8 6

The difference between 585 and 299 is 286.

Subtract.

1. 453 − 164 289	2. 543 − 265 278	3. 416 − 138 278	4. 623 − 346 277
5. 136 − 49 87	6. 225 − 146 79	7. 332 − 143 189	8. 612 − 438 174

What is the mystery number? Subtract. Shade the answers below.

9. 415 − 126 289	10. 312 − 155 157	11. 532 − 275 257	12. 243 − 165 78
13. 635 − 248 387	14. 212 − 157 55	15. 352 − 163 189	16. 421 − 136 285

387 289 87 289

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26

Subtraction, Regrouping with Zero

Subtract 152 from 301.

Regroup 301 as 30 tens 1 one. Regroup 30 tens 1 one as 29 tens 11 ones.	Subtract the ones. Subtract the tens. Subtract the hundreds.
2 9 11 3 0 1 − 1 5 2	2 9 11 3 0 1 − 1 5 2 1 4 9

The difference between 301 and 152 is 149.

Regroup.

1. 403 = 40 tens 3 ones = 39 tens 13 ones
2. 105 = 10 tens 5 ones = 9 tens 15 ones
3. 508 = 50 tens 8 ones = 49 tens 18 ones

Subtract. Follow the path of your answers through the maze in order from start to finish.

4. 308 − 149 159	5. 503 − 236 267	6. 705 − 387 318	7. 801 − 653 148
8. 404 − 175 229	9. 300 − 142 158	10. 201 − 112 89	11. 603 − 498 105
12. 508 − 389 119	13. 604 − 455 149	14. 901 − 683 218	15. 707 − 246 459

START →	159	267	318	317
	219	229	148	138
	147	158	89	105
FINISH ←	459	218	149	119

229 119 159 13

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27

Subtracting Amounts of Money

Diana had $7.00. She spent $4.25 on a gift.
How much does she have left?

Subtract $4.25 from $7.00.

6 9 10
$7.00
− 4.25
2.75

Diana has $2.75 left.

Subtract.

1. $3.58 − 1.89 $1.69	2. $5.45 − 3.68 $1.77	3. $2.45 − 1.56 $0.89	4. $5.15 − 2.75 $2.40
5. $4.25 − 1.79 $2.46	6. $6.28 − 3.59 $2.69	7. $7.82 − 3.95 $3.87	8. $9.43 − 6.55 $2.88

Complete the chart.
How much change does each person receive?

		How much change?
Yogin has $5.00.	He buys $1.15	$5.00 − 1.15 $3.85
Maria has $10.00.	She buys $8.25	$10.00 − 8.25 $1.75
Michael has $2.00.	He buys $1.39	$2.00 − 1.39 $0.61

$2.46 $1.69

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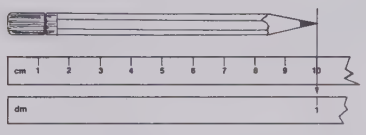
Metres, Decimetres, and Centimetres

The pencil is 10 cm long.
The pencil is 1 dm long.



10 cm = 1 dm
10 dm = 1 m
100 cm = 1 m

Complete the chart.

	cm	dm	m
1.	200	20	2
2.	600	60	6
3.	500	50	5
4.	400	40	4
5.	100	10	1

Complete.

6. 26 dm = 260 cm
7. 42 dm = 4 dm 2 cm
8. 1 m 5 cm = 105 cm
9. 1 m 6 dm = 16 dm
10. 3 dm 5 cm = 35 cm

Put an X on the objects that you would measure in centimetres.
Put an O on the objects that you would measure in metres.

260 20 dm = 2 m

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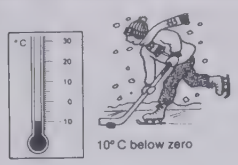
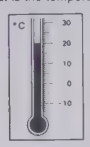
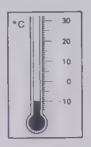
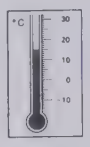
Measuring Temperature in Degrees Celsius



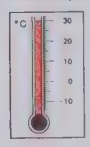
10° C below zero

30° C above zero

What is the temperature?

1.  2°C
2.  -10°C
3.  5°C
4.  -3°C
5.  25°C
6.  5°C

Show each temperature on the thermometer.

7.  30° C
8.  0° C
9.  −5° C

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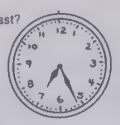
Reading a Clock to the Minute

What time does John eat breakfast?



This clock shows 7:26.

The short hand is the hour hand.
The long hand is the minute hand.

John eats breakfast at 7:26.

What time is it?

1.  8.47
2.  1.12
3.  2.31
4.  9.13
5.  10.24
6.  11.53

Show the time on each clock.

7.  3:13
8.  11:27
9.  7:16

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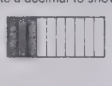
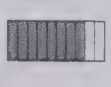
Using Decimals to Show Tenths

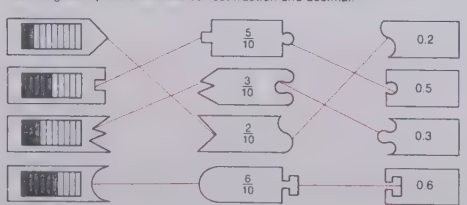
This shows 1 whole.

This shows $\frac{1}{10}$ of a whole.
We can write this as 0.1.

There are 10 equal parts in each shape.
Write a decimal to show how much is shaded.

1.  0.3
2.  0.6
3.  0.4
4.  0.5
5.  0.2
6.  0.8

Make decimal cards. Cut out the puzzle pieces. Put the cards together matching each picture with the correct fraction and decimal.



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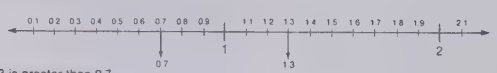
Comparing and Ordering Decimals

Which is greater, 0.7 or 1.3?
Compare the decimals on the number line.



1.3 is greater than 0.7.

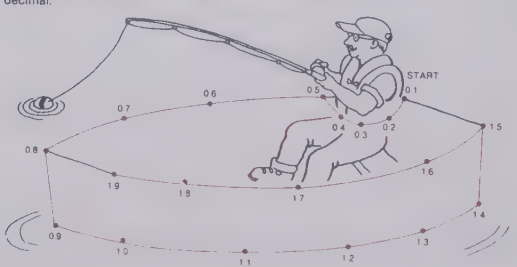
Circle the decimal that is greater.

1. 0.3 or (0.5)
2. (2.1) or 1.7
3. 0.5 or (1.1)
4. (1.3) or 0.7
5. 1.5 or (1.6)
6. 0.9 or (1.0)

Circle the decimal that is less.

7. (0.5) or 1.5
8. (3.3) or 3.5
9. 1.2 or (0.9)
10. (0.4) or 4.2
11. 2.5 or (1.8)
12. 3.6 or (3.5)

Connect the points in order from the least decimal to the greatest decimal.



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Decimals and Place Value

The picture shows 34 tenths, or 3 wholes and 4 tenths.
We write 3.4.

Write a decimal to tell how much is shaded.

1. 
2.3

2. 
4.5

3. 
1.1

4. 
1.7

5. 
2.7

6. 
2.1

1. 11 2. 27 3. 23

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Adding Decimals

Add 1.7 and 3.6.

Line up the decimal points.	Add the tenths. Regroup 13 tenths as 1 one 3 tenths.	Add the ones and place the decimal point.
1.7 +3.6	1 1.7 +3.6 3	1 1.7 +3.6 5.3

The sum of 1.7 and 3.6 is 5.3.

Add.

1. 2.3 + 4.9 = 7.2	2. 1.5 + 3.6 = 5.1	3. 4.5 + 2.7 = 7.2	4. 1.6 + 6.6 = 8.2
5. 3.4 + 2.8 = 6.2	6. 4.8 + 1.9 = 6.7	7. 5.4 + 3.8 = 9.2	8. 2.7 + 5.4 = 8.1
9. 2.4 + 2.8 = 5.2	10. 3.3 + 4.8 = 8.1	11. 6.3 + 1.9 = 8.2	12. 5.5 + 2.6 = 8.1

Add to complete the chart.

13.

+ → / ↓		
1.7	1.8	3.5
2.5	2.3	4.8
4.2	4.1	8.3

14.

+ → / ↓		
2.6	1.9	4.5
2.5	2.7	5.2
5.1	4.6	9.7

15.

+ → / ↓		
3.3	2.8	6.1
1.8	1.3	3.1
5.1	4.1	9.2

16.

+ → / ↓		
3.5	1.6	5.1
2.6	1.5	4.1
6.1	3.1	9.2

13. 62 14. 35, 4.8, 4.2, 4.1, 8.3 15. 52 16. 72

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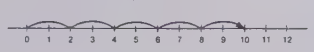
Multiplication, 2, 3, and 4 as Factors

Start at 0 and make 5 jumps of 2. Where do you land?



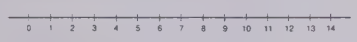
5 jumps of 2 end at 10.

We can write $2 + 2 + 2 + 2 + 2 = 10$

or $5 \times 2 = 10$

5 is a factor, 2 is a factor, 10 is the product.

Use the number line to tell where you land.



1. 3 jumps of 4 12
2. 2 jumps of 3 6
3. 3 jumps of 2 6
4. 2 jumps of 5 10

Write a multiplication sentence for each picture.

5. ○○○○ ○○○○ — 4 × 2 = 8
6. □□ □□ □□ □□ — 2 × 4 = 8
7. ◇◇◇◇◇ ◇◇◇◇◇ — 5 × 2 = 10

Multiply.

8. $5 \times 2 = 10$
9. $3 \times 3 = 9$
10. $2 \times 4 = 8$
11. $5 \times 3 = 15$
12. $6 \times 2 = 12$
13. $4 \times 3 = 12$
14. $2 \times 5 = 10$
15. $2 \times 3 = 6$
16. $3 \times 4 = 12$

8. 10 9. 12 10. 4 × 2 = 8

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Multiplication, 5, 0, and 1 as Factors

How many birds in all?

2 groups of 5.
$2 \times 5 = 10$ birds.
There are 10 birds.

1 group of 5.
$1 \times 5 = 5$ birds.
There are 5 birds.

No groups of 5.
$0 \times 5 = 0$
There are 0 birds.

Complete the chart.

		How many?			Multiplication Sentence
		Rows	Dots in a Row	Dots in all	
1.		2	4	8	4 × 2 = 8
2.		3	5	15	5 × 3 = 15
3.		5	2	10	2 × 5 = 10
4.		1	5	5	5 × 1 = 5
5.		3	3	9	3 × 3 = 9

Multiply.

6. $2 \times 5 = 10$
7. $5 \times 1 = 5$
8. $5 \times 0 = 0$
9. $7 \times 0 = 0$
10. $9 \times 1 = 9$
11. $0 \times 4 = 0$
12. $3 \times 5 = 15$
13. $1 \times 0 = 0$
14. $0 \times 3 = 0$

6. 0 7. 10 8. 15 9. 2 rows; 4 dots in row; 8 dots in all; 4 × 2 = 8

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Multiplication Practice

How many ice cream scoops?

3 scoops on 4 cones

$3 \times 4 = 12$

There are 12 scoops in all.

Complete the multiplication charts.

	X	1	2	3	4	5
1.	0	0	0	0	0	0
2.	1	1	2	3	4	5
3.	2	2	4	6	8	10
4.	3	3	6	9	12	15
5.	4	4	8	12	16	20

	X	1	2	3	4	5
6.	5	5	10	15	20	25
7.	6	6	12	18	24	30
8.	7	7	14	21	28	35
9.	8	8	16	24	32	40
10.	9	9	18	27	36	45

Here is a code.

0	4	6	7	9	10
B	M	U	E	L	G

What does a bee like to chew most? Multiply to find the message.

5 × 0 = 0	2 × 3 = 6	2 × 2 = 4	9 × 0 = 0	3 × 3 = 9	7 × 1 = 7
B	U	M	B	L	E

5 × 2 = 10	6 × 1 = 6	4 × 1 = 4
G	U	M

$0 = 1 \times 0$

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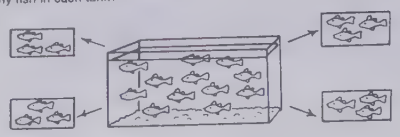
Finding the Number in Each Group

12 fish to be shared equally in 4 tanks.
How many fish in each tank?

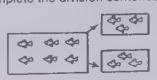


There are 3 fish in each tank.

We can write the division sentence $12 \div 4 = 3$.

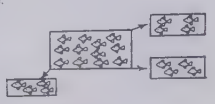
Complete the division sentence for each picture.

1.



$6 \div 2 = 3$

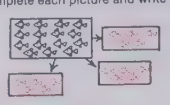
2.



$12 \div 3 = 4$

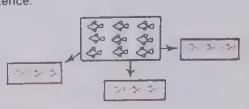
Complete each picture and write a division sentence.

3.



$15 - 3 = 5$

4.

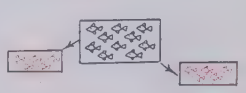


$9 - 3 = 3$

5.

$8 - 2 = 4$

6.



$10 - 2 = 5$

$15 - 3 = 5$ 3

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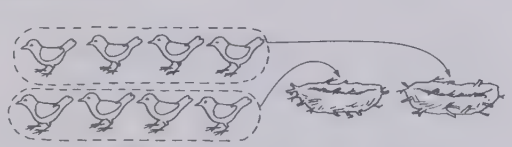
Dividing by 2 and 3



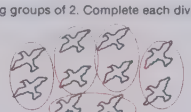
8 birds 2 nests

$8 \div 2 = 4$

There are 4 birds for each nest.

Ring groups of 2. Complete each division sentence.

1.



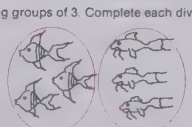
$10 \div 2 = 5$

2.

$12 \div 2 = 6$

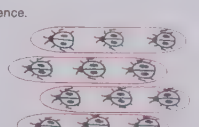
Ring groups of 3. Complete each division sentence.

3.



$6 \div 3 = 2$

4.



$12 \div 3 = 4$

Divide.

5. $14 \div 2 = 7$
6. $18 \div 2 = 9$
7. $6 \div 2 = 3$
8. $15 \div 3 = 5$
9. $9 \div 3 = 3$
10. $18 \div 3 = 6$

5 7 2 5

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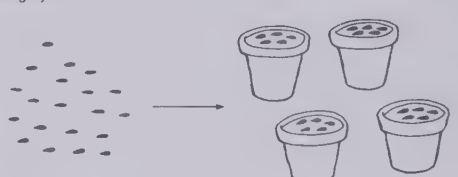
Dividing by 4 and 5

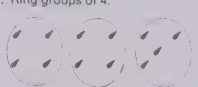


20 seeds for 4 flowerpots.
We can write the division sentence $20 \div 4 = 5$.

There are 5 seeds in each pot.

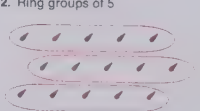
Complete each division sentence.

1. Ring groups of 4.



$12 \div 4 = 3$

2. Ring groups of 5



$15 \div 5 = 3$

Divide.

3. $8 \div 4 = 2$
4. $16 \div 4 = 4$
5. $28 \div 4 = 7$
6. $24 \div 4 = 6$
7. $36 \div 4 = 9$
8. $32 \div 4 = 8$
9. $20 \div 5 = 4$
10. $35 \div 5 = 7$
11. $25 \div 5 = 5$
12. $45 \div 5 = 9$
13. $10 \div 5 = 2$
14. $40 \div 5 = 8$

4 3 6 9 2

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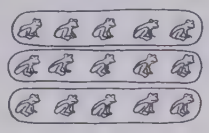
Relating Multiplication and Division

We can write a multiplication sentence and a division sentence for this picture.



3 groups of 5.
15 in all.

$3 \times 5 = 15$

15 divided into 3 groups.
5 in each group.

$15 \div 3 = 5$

Use the pictures to complete the multiplication and division sentences.

1.

$2 \times 5 =$ 10

$10 \div 5 =$ 2

2.

$3 \times 2 =$ 6

$6 \div 2 =$ 3

Complete each family of facts.

3.

$6 \times 4 =$ 24

$4 \times$ 6 $= 24$

$24 \div 6 =$ 4

$24 \div 4 =$ 6

4.

$5 \times 4 =$ 20

$4 \times$ 5 $= 20$

$20 \div 5 =$ 4

$20 \div 4 =$ 5

5.

$8 \times 6 =$ 48

$6 \times$ 8 $= 48$

$48 \div 6 =$ 8

$48 \div 8 =$ 6

24, 6, 4, 6 | 10, 2

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Area and Volume

This is a square centimetre.

Count the number of square centimetres in a figure to find the area.

The area of this figure is 5 cm².

This is a cubic centimetre.

Count the number of cubic centimetres in a figure to find the volume.

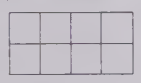
The volume of this figure is 4 cm³.

Find the area of each region in square centimetres.

1.

4 cm²

2.

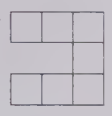


8 cm²

3.

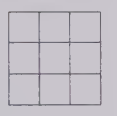
4 cm²

4.



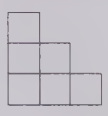
cm²

5.



9 cm²

6.



6 cm²

Find the volume in cubic centimetres.

7.

3 cm³

8.

3 cm³

9.

4 cm³

7 cm² | 3 cm² | 4 cm²

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Pictographs

A graph is a way of showing information.
A pictograph uses pictures to show numbers.

This pictograph shows the number of houses on 5 streets in Jean's neighborhood.

Number of Houses in Jean's Neighborhood

New Street	
Maple Road	
Castle Lane	
Elm Road	
Mulberry Court	
means 5 houses.	

The graph tells us that each means 5 houses.
To find the number of houses on New Street, we multiply the number of by 5.
There are $4 \times 5 = 20$ houses on New Street.

Tell how many houses on each street.

1. Maple Road 30
2. Castle Lane 15
3. Elm Road 35
4. Mulberry Court 20
5. Which two streets have the same number of houses? New Street and Mulberry Court
6. Which street has the most houses? Elm Road
7. Which street has the least number of houses? Castle Lane
8. How many houses in all on Elm Road and Castle Lane? 50

Elm Road | $6 \times 5 = 30$

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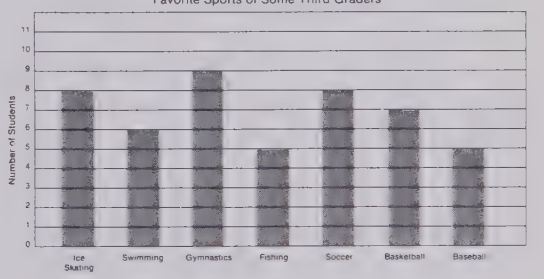
Bar Graphs

Wendy asked some students to name their favorite sport.
She made a bar graph to show the results.

The graph shows that 8 students named ice skating as their favorite sport.

Favorite Sports of Some Third Graders



How many students chose each sport?

1. Swimming 6
2. Gymnastics 9
3. Fishing 5
4. Soccer 8
5. Basketball 7
6. Baseball 5
7. Which sport did the greatest number of students prefer? Gymnastics
8. Which sport was named by the least number of students? Fishing
9. How many more students preferred gymnastics to baseball? 4
10. How many students in all chose ice skating, gymnastics, or soccer as their favorite sport? 25

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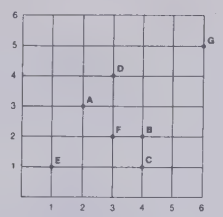
Positions on a Grid



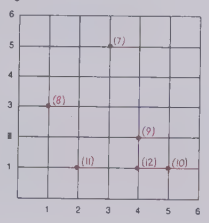
A number pair is used to locate points on a grid.
To name point **A** we count over 2, then up to 3.
We write this as (2,3).

Write the number pair that matches each point on the grid above.

1. point B (4,2)
2. point C (4,1)
3. point D (3,4)
4. point E (1,1)
5. point F (3,2)
6. point G (6,5)

Place each point on the grid.

7. (3,5)
8. (1,3)
9. (4,2)
10. (5,1)
11. (2,1)
12. (4,1)



(4,2)

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Numbers to 9999

We can show the number three thousand two hundred fourteen this way.

thousands	hundreds	tens	ones
3 thousands	2 hundreds	1 ten	4 ones

3000 + 200 + 10 + 4 = 3214

Complete the chart.

	th	h	t	o	Numeral
1.	1	2	2	3	1223
2.	2	0	2	3	2023
3.	1	2	3	0	1230
4.	1	0	3	0	1030

Find the mystery numeral.

2416	1435	9871	6418	3243	8971	2659
8571	8853	1485	6535	2553	6013	5472

Shade all the numerals with a:
- 2 in the thousands place
- 4 in the hundreds place
- 7 in the tens place
- 3 in the ones place

The mystery numeral is 6535.

1, 2, 2, 3, 1223, one thousand two hundred twenty-three

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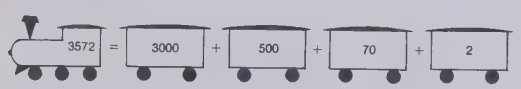
Expanded Form



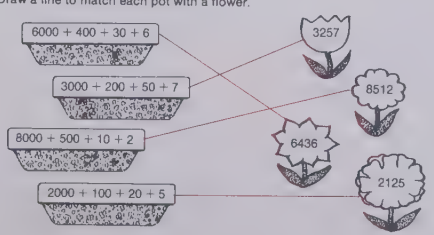
Write each number in expanded form.

1. 435 400 + 30 + 5
2. 652 600 + 50 + 2
3. 2564 2000 + 500 + 60 + 4
4. 4159 4000 + 100 + 50 + 9
5. 6524 6000 + 500 + 20 + 4
6. 9135 9000 + 100 + 30 + 5

Write each number in standard form.

7. 300 + 40 + 5 = 345
8. 200 + 50 + 8 = 258
9. 600 + 60 + 1 = 661
10. 1000 + 200 + 30 + 2 = 1232
11. 3000 + 400 + 60 + 8 = 3468
12. 5000 + 400 + 80 + 9 = 5489
13. 7000 + 700 + 40 + 1 = 7741
14. 2000 + 700 + 20 + 4 = 2724
15. 6000 + 100 + 90 + 2 = 6192

Draw a line to match each pot with a flower.



345

400 + 30 + 5

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48

Comparing and Ordering

Compare 3247 and 3258. Compare the digits. Start at the left.

thousands	hundreds	tens	ones
3	2	5	8
3	2	4	7

same

same

5 tens is greater than 4 tens,
so 3258 is greater than 3247.

We write: 3258 > 3247.

Circle the greater number.

1. (4216) or 3987
2. 2976 or (3015)
3. (8615) or 8595
4. (6411) or 4785
5. 3216 or (3452)
6. 4115 or (4216)

Write < or > to make a true statement.

7. 2142 < 2412
8. 1356 > 1251
9. 8511 > 8151
10. 485 > 479
11. 2111 < 2215
12. 3243 > 3143
13. 5851 < 5916
14. 6321 > 6215
15. 4816 < 4935

Paul played some electronic games.
Put his scores in order from least to greatest.

16. 1325, 465, 982, 1005 465, 982, 1005, 1325
17. 846, 579, 818, 412 412, 579, 818, 846
18. 3516, 1215, 2145, 2015 1215, 2015, 2145, 3516

> 4216

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49

Fractions for Parts of Sets

There are 5 children. 2 of the children are smiling.

We can say $\frac{2}{5}$ of the children are smiling.

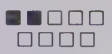
Write the fraction that shows how many of each set are shaded.

1.  $\frac{4}{9}$

2.  $\frac{7}{10}$

3.  $\frac{4}{5}$

4.  $\frac{6}{7}$

5.  $\frac{2}{9}$

6.  $\frac{1}{8}$

Answer each question.

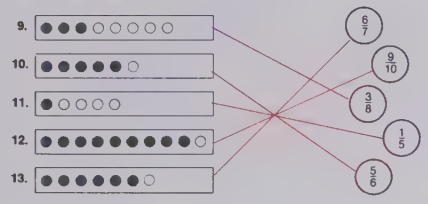
7. Amanda had 5 cookies. She ate 2 of them. What fraction tells how many of the cookies she ate?

$\frac{2}{5}$

8. Joe had 7 doughnuts. He ate 3 of them. What fraction tells how many of the doughnuts he ate?

$\frac{3}{7}$

Draw a line to match.



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50

Addition Practice

Add 454 and 278.

Add the ones.	Add the tens.	Add the hundreds.
$\begin{array}{r} {\scriptstyle 1} \\ 454 \\ +278 \\ \hline 2 \end{array}$	$\begin{array}{r} {\scriptstyle 11} \\ 454 \\ +278 \\ \hline 32 \end{array}$	$\begin{array}{r} {\scriptstyle 1} \\ 454 \\ +278 \\ \hline 732 \end{array}$
Regroup 12 ones as 1 ten 2 ones.	Regroup 13 tens as 1 hundred 3 tens.	

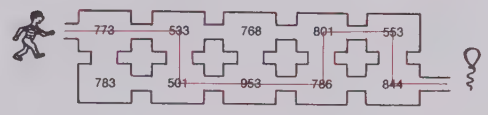
The sum of 454 and 278 is 732.

Add.

1. $\begin{array}{r} 245 \\ +178 \\ \hline 423 \end{array}$	2. $\begin{array}{r} 515 \\ +376 \\ \hline 891 \end{array}$	3. $\begin{array}{r} 472 \\ +253 \\ \hline 725 \end{array}$	4. $\begin{array}{r} 658 \\ +185 \\ \hline 834 \end{array}$
5. $\begin{array}{r} 225 \\ +98 \\ \hline 323 \end{array}$	6. $\begin{array}{r} 175 \\ +548 \\ \hline 723 \end{array}$	7. $\begin{array}{r} 359 \\ +358 \\ \hline 717 \end{array}$	8. $\begin{array}{r} 645 \\ +287 \\ \hline 932 \end{array}$

Add. Follow the path of your answers in order to help the boy find his balloon.

9. $\begin{array}{r} 298 \\ +475 \\ \hline 773 \end{array}$	10. $\begin{array}{r} 342 \\ +191 \\ \hline 533 \end{array}$	11. $\begin{array}{r} 425 \\ +76 \\ \hline 501 \end{array}$	12. $\begin{array}{r} 658 \\ +295 \\ \hline 953 \end{array}$
13. $\begin{array}{r} 568 \\ +218 \\ \hline 786 \end{array}$	14. $\begin{array}{r} 148 \\ +653 \\ \hline 801 \end{array}$	15. $\begin{array}{r} 435 \\ +118 \\ \hline 553 \end{array}$	16. $\begin{array}{r} 735 \\ +109 \\ \hline 844 \end{array}$



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51

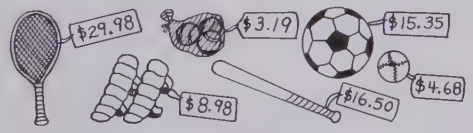
Adding Amounts of Money

Jean-Paul bought a soccer ball for $15.35 and shin guards for $8.98. How much did he spend in all?

Add the cents. Regroup as needed.	Add the dollars.
$\begin{array}{r} {\scriptstyle 11} \\ \$15.35 \\ +\ 8.98 \\ \hline .33 \end{array}$	$\begin{array}{r} {\scriptstyle 1} \\ \$15.35 \\ +\ 8.98 \\ \hline \$24.33 \end{array}$

Jean-Paul spent $24.33 in all.

Laurie works in Susan's Sport Shop. Help her add the sales slips.



1.

Tennis racket	$29.98
Tennis balls	$3.19
Total	$33.17

2.

Baseball bat	$16.50
Baseball	$4.68
Total	$21.18

3.

Soccer ball	$15.35
Baseball	$4.68
Total	$20.03

4.

Tennis racket	$29.98
Soccer ball	$15.35
Total	$45.33

5.

Shin guards	$8.98
Tennis balls	$3.19
Total	$12.17

6.

Tennis balls	$3.19
Baseball	$4.68
Total	$7.87

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With pages 228-229

52

Adding Three Numbers

Centre City Parking Lot can hold 264 cars. East End Parking Lot can hold 277 cars. Mid Town Lot can hold 185 cars. How many cars can the 3 parking lots hold in all?

Add 264, 277, and 185.

Add the ones and regroup.	Add the tens and regroup.	Add the hundreds.
$\begin{array}{r} {\scriptstyle 1} \\ 264 \\ 277 \\ +185 \\ \hline 6 \end{array}$	$\begin{array}{r} {\scriptstyle 21} \\ 264 \\ 277 \\ +185 \\ \hline 26 \end{array}$	$\begin{array}{r} {\scriptstyle 21} \\ 264 \\ 277 \\ +185 \\ \hline 726 \end{array}$

The 3 parking lots can hold 726 cars in all.

Here is a code.

545	648	686	802	851	492	806	719	761	912	736	640
T	R	B	U	L	C	I	A	E	Y	P	H

What building has the most storeys?
Add to find the answer to the riddle.

265	175	352
132	325	168
+148	+140	+241
545	640	761
T	H	E

315	225	119	155	415	245
245	165	352	231	213	135
+176	+412	+215	+465	+178	+112
736	802	686	851	806	492
P	U	B	L	I	C

215	348	143	245	219	155	352
136	225	128	145	325	125	215
+500	+233	+415	+258	+175	+368	+345
851	806	686	648	719	648	912
L	I	B	R	A	R	Y

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Subtraction Practice

It is often necessary to regroup in order to subtract.

Subtract 153 from 324.

Subtract the ones.

$$\begin{array}{r} 324 \\ -153 \\ \hline 1 \end{array}$$

Subtract the tens.
We cannot subtract 5 tens from 2 tens.

$$\begin{array}{r} {}^{2}\not{3}\,{}^{12}\not{2}4 \\ -153 \\ \hline 71 \end{array}$$

Regroup 3 hundreds 2 tens as 2 hundreds 12 tens.

Subtract the hundreds.

$$\begin{array}{r} {}^{2}\not{3}\,{}^{12}\not{2}4 \\ -153 \\ \hline 171 \end{array}$$

The difference between 324 and 153 is 171.

Regroup to show more ones.

1. 4 hundreds 3 tens 2 ones = 4 hundreds 2 tens 12 ones.
2. 3 hundreds 4 tens 5 ones = 3 hundreds 3 tens 15 ones.

Regroup to show more tens.

3. 3 hundreds 4 tens 5 ones = 2 hundreds 14 tens 5 ones.
4. 5 hundreds 3 tens 2 ones = 4 hundreds 13 tens 2 ones.

Play subtraction tick-tack-toe.
Three of the same answers in a row wins.

315 − 178 = 137	453 − 285 = 168	245 − 168 = 77
255 − 118 = 137	632 − 358 = 274	564 − 298 = 266
212 − 75 = 137	158 − 79 = 79	331 − 143 = 188

14 12

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Subtraction Practice

Planet M has 712 craters. Planet Z has 431 craters.
How many more craters does Planet M have than Planet Z?

Subtract 431 from 712.

Subtract the ones.

$$\begin{array}{r} 712 \\ -431 \\ \hline 1 \end{array}$$

Regroup 7 hundreds 1 ten as 6 hundreds 11 tens. Subtract the tens.

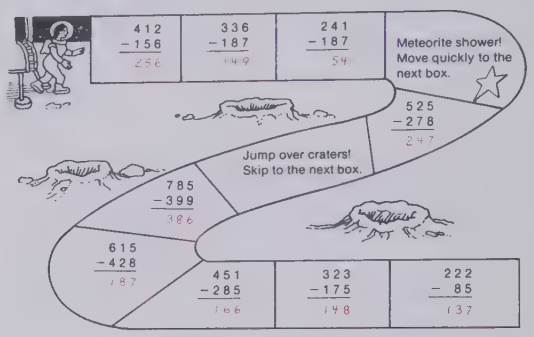
$$\begin{array}{r} 6\ {}^{11} \\ 7\not{1}2 \\ -431 \\ \hline 81 \end{array}$$

Subtract the hundreds.

$$\begin{array}{r} 6\ {}^{11} \\ 7\not{1}2 \\ -431 \\ \hline 281 \end{array}$$

Planet M has 281 more craters than Planet Z.

Subtract. Take a moon walk. Watch out for craters!



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Subtracting Amounts of Money

Lisa bought a leash for her dog for $12.87.
Michelle bought a leash for $8.92.
How much more did Lisa spend than Michelle?

Subtract the cents.

$$\begin{array}{r} {}^{1}\$\not{1}\,{}^{18}\not{2}.\not{8}7 \\ -\ 8.92 \\ \hline .95 \end{array}$$

Regroup 2 dollars 8 dimes as 1 dollar 18 dimes.

Subtract the dollars.

$$\begin{array}{r} {}^{1}\$\not{1}\,{}^{18}\not{2}.\not{8}7 \\ -\ 8.92 \\ \hline 3.95 \end{array}$$

Lisa spent $3.95 more than Michelle.

Subtract.

1. $15.65 − 5.75 = $9.90
2. $11.58 − 6.75 = $4.83
3. $12.41 − 8.78 = $3.63
4. $13.42 − 9.65 = $3.77
5. $12.56 − 7.85 = $4.71
6. $17.84 − 9.93 = $7.91

Complete the chart.

	I have	I buy	I have left
7.	$12.40	$8.99	$12.40 − 8.99 = $3.41
8.	$15.40	$2.60	$15.40 − 2.60 = $12.80
9.	$10.75	$9.99	$10.75 − 9.99 = $0.76

$3.77 $9.06

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Using Addition to Check Subtraction

Subtract and check.

Subtract.

$$\begin{array}{r} 534 \\ -285 \\ \hline 249 \end{array}$$

Add to check.

$$\begin{array}{r} 285 \\ +249 \\ \hline 534 \end{array}$$

These two numbers should match.

Subtract. Add to check.

1. 87 − 32 = 55 ; 32 + 55 = 87
2. 79 − 43 = 36 ; 43 + 36 = 79
3. 87 − 19 = 68 ; 19 + 68 = 87
4. 27 − 15 = 12 ; 15 + 12 = 27
5. 36 − 19 = 17 ; 19 + 17 = 36
6. 42 − 26 = 16 ; 26 + 16 = 42
7. 745 − 289 = 456 ; 289 + 456 = 745
8. 364 − 185 = 179 ; 185 + 179 = 364
9. 412 − 266 = 146 ; 266 + 146 = 412

Subtract across and down. Find the magic difference in the corner box.

10.

		↓
243	151	92
165	86	79
78	65	13

11.

		↓
342	175	167
254	88	166
88	87	1

55

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57

Regrouping with Zeros

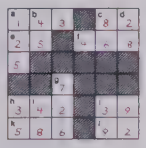
Sara scored 1000 points on her electronic game. Samantha scored 832. How many more points did Sara score than Samantha?

Subtract 832 from 1000.

Regroup.	Subtract.
$\overset{9\ 9\ 10}{1\,\not{0}\,\not{0}\,\not{0}}$	$\overset{9\ 9\ 10}{1\,\not{0}\,\not{0}\,\not{0}}$
$-\ 832$	$-\ 832$
	168

Lisa scored 168 more points than Samantha.

Complete the cross-number puzzle.



Across

a. $200 - 57 = 143$

c. $300 - 218 = 82$

e. $400 - 375 = 25$

f. $1000 - 532 = 468$

h. $1000 - 658 = 342$

j. $100 - 61 = 39$

k. $1000 - 414 = 586$

l. $200 - 108 = 92$

Down

a. $500 - 375 = 125$

b. $100 - 55 = 45$

c. $400 - 314 = 86$

d. $200 - 172 = 28$

g. $1000 - 274 = 726$

h. $300 - 265 = 35$

i. $100 - 52 = 48$

j. $1000 - 961 = 39$

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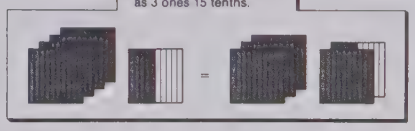
58

Subtracting Decimals

Subtract 1.8 from 4.5.

Line up the ones and the tenths.	We cannot subtract 8 tenths from 5 tenths.	Subtract.
4.5	$\overset{3\ \ 15}{\not{4}.\not{5}}$	$\overset{3\ \ 15}{\not{4}\ \not{5}}$
$-\ 1.8$	$-\ 1.8$	$-\ 1.8$
		2.7

Regroup 4 ones 5 tenths as 3 ones 15 tenths.



1.8 from 4.5 is 2.7.

Subtract.

1. $4.3 - 2.6 = 1.7$

2. $7.1 - 5.3 = 1.8$

3. $6.5 - 4.6 = 1.9$

4. $5.2 - 3.8 = 1.4$

5. $2.7 - 1.8 = 0.9$

6. $3.5 - 2.7 = 0.8$

7. $9.2 - 6.3 = 2.9$

8. $8.4 - 2.7 = 5.7$

Subtract across and down. Find the magic difference in the corner box.

9.

9.6	4.2	5.4
3.6	1.4	2.2
6.0	2.8	3.2

10.

8.4	2.5	5.9
6.7	1.5	5.2
1.7	1.0	0.7

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59

Metres, Centimetres, and Decimals

Steven is 1 m 50 cm tall.
He is 150 cm tall.

We can write 1 m 50 cm as 1.50 m.

Write as a decimal.

1. 3 and 42 hundredths 3.42

2. 4 and 51 hundredths 4.51

3. 2 and 7 hundredths 2.07

4. 6 and 17 hundredths 6.17

Complete the table.

5.	452 cm	4 m and 52 cm	4.52 m
6.	365 cm	3 m and 65 cm	3.65 m
7.	841 cm	8 m and 41 cm	8.41 m
8.	512 cm	5 m and 12 cm	5.12 m
9.	229 cm	2 m and 29 cm	2.29 m
10.	698 cm	6 m and 98 cm	6.98 m
11.	732 cm	7 m and 32 cm	7.32 m
12.	243 cm	2 m and 43 cm	2.43 m

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60

Multiplication, 0 to 5 as Factors

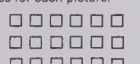
3 clowns are juggling 4 balls each.
$3 \times 4 = 12$

4 clowns are juggling 3 balls each.
$4 \times 3 = 12$

Write two multiplication sentences for each picture.

1. 

$5 \times 2 = 10$
$2 \times 5 = 10$

2. 

$6 \times 3 = 18$
$3 \times 6 = 18$

3. 

$5 \times 3 = 15$
$3 \times 5 = 15$

Multiply. Draw a picture if you need to.

4.

2	3
$\times 3$	$\times 2$
6	6

5.

7	2
$\times 2$	$\times 7$
14	14

6.

4	2
$\times 2$	$\times 4$
8	8

Complete the product wheel. Find the products by multiplying each number by the number in the centre.

7.

8.

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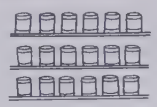
61

Multiplication, 6 to 9 as Factors

How many cans are on the shelves?



$6 + 6 + 6 = 18$
$6 \times 3 = 18$

There are 18 cans in all.

Multiply.

1. $5 \times 6 = 30$	**2.** $2 \times 9 = 18$	**3.** $3 \times 8 = 24$	**4.** $4 \times 9 = 36$	**5.** $6 \times 7 = 42$	**6.** $7 \times 5 = 35$
7. $7 \times 8 = 56$	**8.** $6 \times 3 = 18$	**9.** $9 \times 4 = 36$	**10.** $8 \times 5 = 40$	**11.** $4 \times 8 = 32$	**12.** $2 \times 8 = 16$

Here is a code.

42	49	48	27	35	54	32	45	63
P	A	L	I	E	Y	R	V	S

What is green and sings rock 'n' roll? Multiply to find the answer.

$5 \times 7 = 35$	$6 \times 8 = 48$	$9 \times 5 = 45$	$3 \times 9 = 27$	$7 \times 9 = 63$
E	L	V	I	S

$6 \times 7 = 42$	$7 \times 7 = 49$	$4 \times 8 = 32$	$9 \times 7 = 63$	$8 \times 6 = 48$	$7 \times 5 = 35$	$9 \times 6 = 54$
P	A	R	S	L	E	Y

56 30

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62

10 and 100 as Factors

There are 10 cards in each package.
Danny has 4 packages.
How many cards does he have in all?

Start at 0 and jump by tens.
Show 4 jumps.

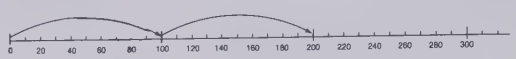
Danny has 40 cards.

Complete.

1. $7 \times 10 = 70$	**2.** $1 \times 10 = 10$	**3.** $3 \times 10 = 30$
4. $9 \times 10 = 90$	**5.** $2 \times 10 = 20$	**6.** $8 \times 10 = 80$
7. $0 \times 10 = 0$	**8.** $6 \times 10 = 60$	**9.** $5 \times 10 = 50$

There are 100 marbles in each bag.
Leah has 2 bags.
How many marbles does she have in all?

Start at 0 and jump by hundreds.
Show 2 jumps



Leah has 200 marbles.

Complete.

10. $3 \times 100 = 300$	**11.** $6 \times 100 = 600$	**12.** $5 \times 100 = 500$
13. $8 \times 100 = 800$	**14.** $4 \times 100 = 400$	**15.** $0 \times 100 = 0$
16. $1 \times 100 = 100$	**17.** $9 \times 100 = 900$	**18.** $7 \times 100 = 700$

300 70

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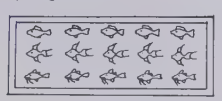
63

Divisors to 5

There are 15 fish for 3 fish tanks.
How many will go in each tank?



Divide 15 by 3.

Think: $3 \times 5 = 15$

×	5
3	15

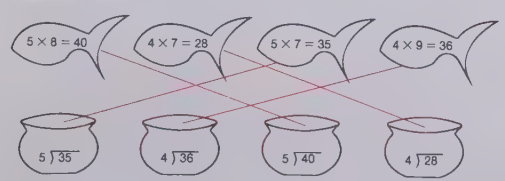
5 fish will go in each tank.

$15 \div 3 = 15$ or $3\overline{)15}$ → 5

Fill in the missing numerals.

1. $\times$ 4 / 2 | 8 → $2\overline{)8}$ → 4	**2.** $\times$ 6 / 4 | 24 → $4\overline{)24}$ → 6
3. $\times$ 4 / 3 | 12 → $3\overline{)12}$ → 4	**4.** $\times$ 5 / 5 | 25 → $5\overline{)25}$ → 5
5. $\times$ 6 / 5 | 30 → $5\overline{)30}$ → 6	**6.** $\times$ 4 / 4 | 16 → $4\overline{)16}$ → 4
7. $\times$ 9 / 3 | 27 → $3\overline{)27}$ → 9	**8.** $\times$ 8 / 5 | 40 → $5\overline{)40}$ → 8

Draw a line to match a multiplication fact with the related division.
Complete each division.



4 4

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64

Divisors to 9

There are 42 bananas on 7 equal bunches.
How many bananas on each bunch?

$7\overline{)42}$

Think.

×	6
7	42

There are 6 bananas on each bunch.

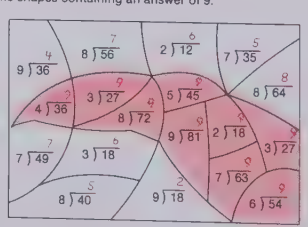
Fill in the missing numerals.

1. $\times$ 8 / 7 | 56 → $7\overline{)56}$ → 8	**2.** $\times$ 8 / 9 | 72 → $9\overline{)72}$ → 8
3. $\times$ 8 / 8 | 64 → $8\overline{)64}$ → 8	**4.** $\times$ 6 / 9 | 54 → $9\overline{)54}$ → 6

Divide.

5. $9\overline{)36}$ → 4	**6.** $8\overline{)48}$ → 6	**7.** $7\overline{)63}$ → 9	**8.** $9\overline{)45}$ → 5
9. $7\overline{)28}$ → 4	**10.** $8\overline{)40}$ → 5	**11.** $9\overline{)72}$ → 8	**12.** $8\overline{)56}$ → 7

Divide. Shade all the shapes containing an answer of 9.



4 8

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Thinking of a Picture

Which picture goes with each problem? Give the letter.

1. Louisa picked 8 apples. She gave 6 to her friends. How many are left?

   b

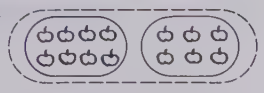
2. Marc picked 8 apples. Joan picked 6. Who picked more?

   c

3. Marc picked 8 apples. Joan picked 6. How many did they pick in all?

   a

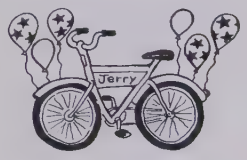
a.

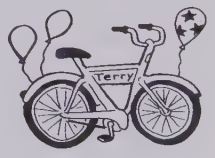


b.

c.

Use these pictures for exercises 4 to 9.





4. Whose bike has 6 balloons? Jerry's
5. How many balloons are on Terry's bike? 3
6. How many balloons with stars are on Jerry's bike? 4
7. How many balloons are on both bikes? 9
8. How many balloons have stars? 5
9. How many balloons have no stars? 4

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Solving Problems Without Using Numbers

Tell how you would solve each problem. Write "add" or "subtract."

1. Julia had $■. She earned $▲. How much does she have now?

   add

2. There are ■ peach trees. There are ▲ cherry trees. How many fruit trees there?

   add

3. There are ■ children at the playground. ▲ children go home. How many are left?

   subtract

4. I buy a book for $▲. I give the clerk $■. How much change should I get?

   subtract

5. Mary's photo album has ■ pages. ▲ pages are empty. How many pages are not empty?

   subtract

6. For the class picnic, there are ■ chocolate cookies. There are ▲ raisin cookies. How many cookies are there in all?

   add

7. A crayon box holds ■ crayons. ▲ crayons are lost. How many are left?

   subtract

8. One box has ■ eggs in it. There are ▲ eggs left in another box. How many eggs are there in all?

   add

9. In Mr. Rose's room there are ▲ students. There are ■ students in Mrs. Lee's room. How many students are in both rooms?

   add

10. ▲ coats are hanging up. Jack and Jill hang up their coats. Now how many coats are hanging up?

    add

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Too Much Information

Sometimes there is more information in a problem than you need.

There are (37 buttons) in a box.
12 buttons are blue, 15 are red, and
(10 are black). How many more red buttons are there than blue buttons?

We do not need the facts that are circled.
We do need the facts that are underlined.

$15 - 12 = 3$ There are 3 more red buttons.

For each problem, draw a line through the information that you do not need. Underline the information that you do need.

1. For the class picnic there are 14 tuna sandwiches, 18 peanut butter sandwiches, ~~and 5 L lemonade~~. How many more peanut butter sandwiches than tuna are there?
2. Six of the tuna sandwiches are on wholewheat bread. The rest are on white bread. ~~7 of the peanut butter sandwiches also have jelly~~. How many tuna sandwiches are on white bread?
3. The class also has 10 red apples, 15 yellow apples, ~~9 peaches, and 2 kg of grapes~~. How many apples are there in all?
4. Mr. Brown brought 12 chocolate cookies, 18 raisin cookies, ~~and 20 tarts~~. How many cookies are there altogether?
5. At the fair, Marie spent $1.25 ~~for 8 rides~~ and John spent $2.35 ~~for 12 rides~~. How much did they spend in all?
6. Lucy and ~~Barbara~~ went on 5 rides each. Margaret went on 8 rides. Each ride was ~~3 min.~~ long. How many more rides did Margaret go on than Lucy?
7. John bought a book ~~of 10 tickets~~ for $2.50. He bought a red balloon for 65¢. How much did he spend in all?
8. Candy apples cost 40¢. ~~Ice cream cones are 25¢ (small) or 35¢ (large).~~ Lemonade is 35¢. How much does it cost to buy a lemonade and a candy apple?

Now solve all the problems. Write the answers below.

1. 4
2. 8
3. 25
4. 30
5. $3.60
6. 3
7. $3.15
8. 75¢

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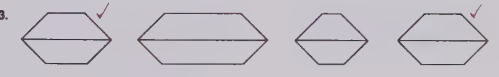
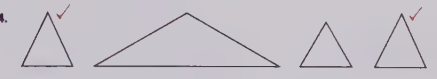
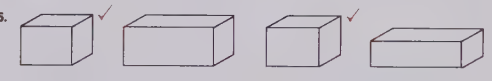
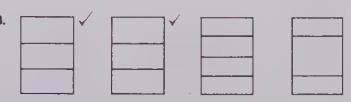
How Well Do You See?

In each row, check the two shapes that are the same.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

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Solving Problems in Two Steps

Leo bought a can of dog food for 39¢ and a new leash for $1.89. He paid with a $5 bill. How much change should he get?

Step 1. Find the total bill.

$0.39 dog food
+ 1.89 leash
$2.28 total

Step 2. Find how much change.

$5.00
− 2.28
$2.72 change

Use these prices for exercises 1 to 6.

HAMBURGER SHACK

	Cheese	Drinks
Regular ..... 85¢	Canadian ..... 30¢	Orange ..... 40¢
Super $1.10	Swiss ..... 50¢	Small Milk ..... 35¢
SuperDuper ...$1.35	Onions ..... 10¢	Large Milk ..... 50¢
	Bacon ..... 25¢	Chocolate Milk .. 40¢
	Tomato ..... 15¢	

1. Mario had a regular hamburger with tomato and onions. How much did it cost?

   $1.10

2. How much is a Super hamburger with Canadian cheese and a small milk?

   $1.75

3. Louise ordered a SuperDuper with onions. Then she had an orange drink. How much was her bill?

   $1.85

4. Mary ordered a regular hamburger and a chocolate milk. Her sister had a Super with Swiss cheese. How much did they spend?

   $2.85

5. You have a SuperDuper with onions and bacon. How much change do you get from $5.00?

   $3.30

6. Danny and Luis each want a SuperDuper with bacon and a large milk. They have $5.00. Is it enough?

   yes

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Does the Answer Make Sense?

Whenever you solve a problem make sure your answer makes sense.

Charles is 10 years old. His sister Marie is older.
How old is Marie?
7 13 30

The answer is probably 13. Why?

For each exercise, underline the sensible answer.

1. How much did each student spent at the fair?
   15 L 9 kg $6.25
2. What is the temperature in the schoolroom?
   17°C 17 L 17 g
3. How tall is Mr. Anderson?
   2 cm 2 m 2 kg
4. How heavy is John's baby sister?
   9 L 9 g 9 kg
5. How many slices of bread are in one loaf?
   20 200 2
6. How far does Ralph walk to school each day?
   35 cm 90 km 2 km
7. There are 12 classrooms in my school. How many students are there?
   2500 250 25
8. How much lemonade will a pitcher hold?
   10 L 2 L 2 cm
9. About how many pages are there in your math textbook?
   300 30 3000
10. About how far is it from Montreal to Vancouver?
    5000 m 5000 kg 5000 km

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How Would You Do It?

Somewhere on the page is the computation for each problem.
Find the computation and complete it.
Then write the answer on the line.

1. Frank has 178 Canadian stamps and 256 non-Canadian. How many stamps are there altogether?

   434

2. Of the 256 non-Canadian stamps, 103 are American. The rest are European. How many are European stamps?

   153

3. All the European stamps are French or German. If 62 are German, how many are French?

   91

4. Mary Louise has a collection of toy cars. She has 13 red ones, 17 blue ones, and 6 green ones. How many cars are there in all?

   36

5. How many more blue cars than red ones does she have?

   4

6. On Friday Mark jogged 1.5 km. On Saturday he jogged 2.3 km. How far did he jog during the two days?

   3.8 km

7. The band rehearsed for 1.5 h on Tuesday. They also rehearsed 2.3 h on Friday. How much longer did they rehearse on Friday?

   0.8 h

8. In one class there are 13 students with brown eyes and 17 students with blue eyes. How many students are in the class?

   30

256 − 103 = 153	2.3 + 1.5 = 3.8	17 − 13 = 4	153 − 62 = 91
17 + 13 = 30	13 + 17 + 6 = 36	178 + 256 = 434	2.3 − 1.5 = 0.8

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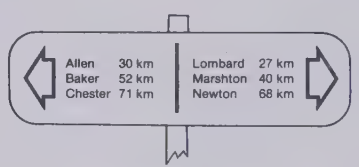
Drawing Pictures



For each problem, choose the correct picture. Then solve.

1. How far is it from Allen to Baker? c 22 km
2. How far is it from Baker to Lombard? d 79 km
3. How far is it from Chester to Marshton? a 111 km
4. How far is it from Allen to Chester? f 100 km
5. How far is it from Chester to Lombard? e 98 km
6. How far is it from Marshton to Newton? b 28 km

a. 71 km, 40 km

b. 40 km, 68 km

c. 30 km, 52 km

d. 52 km, 27 km

e. 71 km, 27 km

f. 30 km, 70 km

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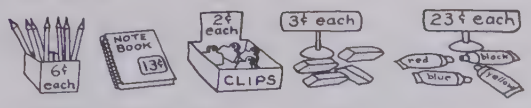
Guess and Test



1. Joanne spent 16¢. She has 2 items. What are they?

   1 notebook, 1 eraser

2. You spend 31¢. You have 4 items. What are they?

   3 pencils, 1 notebook

3. Ted bought 4 items. He spent less than 25¢. What could he have bought?

   Answers will vary

4. You want to make 25¢ with 4 coins. How could you do it? Use the table to help.

1¢	5¢	10¢
	3	1

5. Using 1¢, 5¢, and 10¢ coins, what is the least number of coins you can use to make 25¢?

   3 (2 dimes, 1 nickel)

6. How can you make 73¢ with 8 coins? with 7 coins?

1¢	5¢	10¢	25¢	50¢
3	1			1
3	2	1		1

7. What is the greatest amount that you can make with 3 different coins?

   85 ¢

8. What is the least amount that you can make with 3 different coins?

   16¢

1¢	5¢	10¢
1		
1	1	
1	1	1
	1	
	1	1
		1

9. How many different amounts can you make with a penny, a nickel, and a dime?

   6

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What Do You Think?

For each problem, circle the operation you would use to solve it.

1. There are ■ students in the class. Each one has ▲ pencils. How many pencils in all?

   \+ − (×) ÷

2. Jules is ■ cm tall. His little sister is ▲ cm tall. How much taller is Jules?

   \+ (−) × ÷

3. There are ■ crayons in the box. ▲ crayons are red. How many are not red?

   \+ (−) × ÷

4. There are ■ crayons in each box. There are ▲ boxes. How many crayons are there?

   \+ − (×) ÷

5. There are ▲ desks in a row. There are ■ rows. How many desks are there?

   \+ − (×) ÷

6. There are ▲ desks in a row. There are ■ desks in all. How many rows are there?

   \+ − × (÷)

7. There are ■ milk bottles. There are ▲ bottles in a case. How many cases are there?

   \+ − × (÷)

8. There are ■ milk bottles and ▲ soda bottles. How many bottles are there?

   (+) − × ÷

9. The temperature is ■ °C. One hour ago it was ▲ ° colder. What was the temperature then?

   \+ (−) × ÷

10. The temperature one hour ago was ■ °C. It rose ▲ °. What is the temperature now?

    (+) − × ÷

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More Information Needed

Check the fact you need. Then solve the problem.

Facts

1. Julie's bowling score was 149. How much more was that than John's score?

   a. John bowled 160.
   ✓ b. John bowled 123.
   c. John is 2 years younger than Julie.

   26

2. Minta works as a baby-sitter. She worked 4 h last week. How much did she earn?

   ✓ a. She charges $1.25 an hour.
   b. She took care of 2 children.
   c. She only baby-sits on Saturday.

   $5.00

3. At the record shop Mitch bought 3 records. How much did he spend?

   a. The records were rock-and-roll.
   ✓ b. Each record cost $3.79.
   c. The store is open until 7:30 p.m.

   $11.37

4. Henry's book has 135 pages. How many more does he have to read?

   a. Henry has read 4 books this month.
   b. The dictionary has over 1000 pages.
   ✓ c. Henry has read 53 pages.

   82

5. My collie has a mass of 34 kg. How much lighter is the poodle?

   a. The beagle has a mass of 16 kg.
   b. The poodle is black.
   ✓ c. The poodle has a mass of 24 kg.

   10 kg

6. There were 38 dogs at the school pet show. How many cats and dogs were there?

   a. 9 people bought parakeets.
   ✓ b. There were 42 cats.
   c. There were no frogs.

   80

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Choosing the Information Needed

Use this story for exercises 1 to 7.

During the school vacation the Martins went on a trip. They drove 300 km a day for 3 days. One day the temperature was 20°C. They stopped at a gas station on Saturday and bought 52 L of gas for 47¢ a litre. The car also needed 2 L of oil at $1.89 a litre.

One day they had a picnic. Mrs. Martin bought a loaf of bread for 89¢ and 6 peaches for 25¢ each. She also bought 1 kg of sliced meat for $9.40 and 1 L of milk for $1.10. Mrs. Martin gave the clerk a $20 bill.

1. How far did they drive?

   900 km

2. How much did they pay for gas on Saturday?

   $24.44

3. How much was the oil?

   $3.78

4. What was the total bill at the gas station?

   $28.22

5. How much did the peaches cost?

   $1.50

6. What was the total cost of the meat and the milk?

   $10.50

7. How much change did Mrs. Martin get?

   $8.00

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Finding the Missing Information

For each problem, do the following.

A. Identify the missing information.
B. Tell how to find it.
C. Tell how to solve the problem.

1. The kittens are in a box. There are 3 black ones. How many are not black?
   - A. total number of kittens
   - B. count
   - C. subtract: total − 3

2. A pack of construction paper has 48 sheets. How many were used?
   - A. number of sheets left
   - B. count
   - C. subtract: 48 − number left

3. How many weeks until the end of school?
   - A. today's date, date of last day
   - B. calendar, ask teacher
   - C. count using calendar

4. Four students cannot go on the class trip. How many are going?
   - A. number of students in class
   - B. count or ask
   - C. subtract: total − 4

5. How much farther is it from Calgary to Regina than from Calgary to Edmonton?
   - A. distance from C to E and from C to R
   - B. use maps
   - C. subtract: distance from C to R − distance from C to E

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Skills Practice

Solve. If there is not enough information, tell what is missing.

1. Tim went to a garage sale. He bought a pair of ice skates for $5.00 and a hockey stick for $2.35. How much did he spend?

   $7.35

2. Tim started with $10. How much did Tim have left? (See exercise 1.)

   $2.65

3. At the sale Mrs. Brown bought 6 napkins for 25¢ each. How much did she spend on the napkins?

   $1.50

4. Mrs. Brown also bought 7 plates for 35¢ each. How much did she spend at the sale? (See exercise 3.)

   $3.95

5. How much money did Mrs. Brown have left? (See exercise 4.)

   do not know how much she started with

6. At one table there was a box of old jars. Jars with lids cost 10¢ and jars without lids cost 5¢. Laurie bought 8 jars with lids. How much did she pay?

   80¢

7. Martha bought a game for 75¢. Then she bought some dominoes for 40¢. She had $3.00 with her. How much was left?

   $1.85

8. Greg paid $3.60 for 9 old records, 39¢ for a bag of marbles, and 25¢ for a pack of hockey cards. How much did he spend?

   $4.24

9. Marcy saw a doll's carriage for $1.85 and a wagon for $3.50. She has $5.00. Can she buy the carriage and the wagon?

   no

10. Mrs. King bought a wheelbarrow for $3.75 and a rake. How much did she spend?

    do not know the price of the rake

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More Than One Solution

Each problem has more than one solution. Give as many as you can. Answers will vary.

1. How many ways can you make 25¢?
   Use the table to help you.
   Make the table longer if you need to.

1¢	5¢	10¢	25¢
			1
	1	2	
5		2	
5	2	1	

12

1¢	5¢	10¢	25¢
	3	1	
10	1	1	
	5		
5	4		
10	3		
15	2		
20	1		
25			

2. The sum of three numbers is 8. What could the numbers be?
   Do not use zero.

   1+2+5, 1+1+6, 1+3+4, 2+3+3, 2+2+4

3. The product of two numbers is 36. What could the numbers be?

   1×36, 2×18, 3×12, 4×9, 6×6

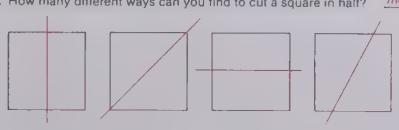
4. The product of three numbers is 24. What are the numbers?
   Do not forget the number 1.

   1×1×24, 1×2×12, 1×3×8, 1×4×6, 2×3×4, 2×2×6

5. Karin spent $1.00 on stamps.
   She bought 10¢ and 15¢ stamps.
   How many of each did she buy?

10¢	15¢
1	6
4	4
7	2

6. How many different ways can you find to cut a square in half? many



(Any cut through the centre bisects a square.)

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The Concluding Statement

These questions were taken from problems. The answers are in the box.
For each question, find the answer and write a concluding statement.
Wording of answers may vary.

1. How much more is John's mass than his sister's?

   John weighs 8 kg more than his sister.

2. How much did she spend in all?

   She spent $8.53.

3. How many bottles are there in 24 boxes?

   There are 144 bottles in 24 boxes.

4. How heavy were the 4 pigs together?

   Together the 4 pigs weighed 368 kg.

5. How far does Leif ride on the school bus each week?

   Leif rides 115 km on the school bus each week.

6. How many buns did they buy?

   They bought 48 buns.

7. How many sheets of paper are there in 10 packs?

   There are 480 sheets in 10 packs.

8. How many fish did they catch together?

   Together they caught 19 fish.

Answer Box

144 115 km $8.53
480 368 kg
19 48 8 kg

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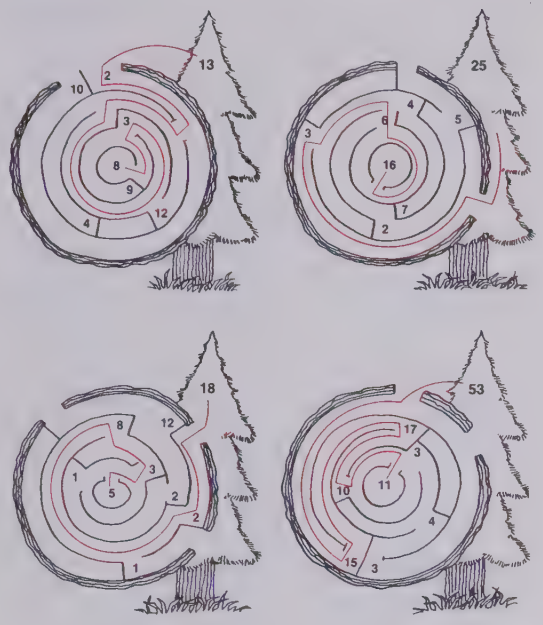
SPM 3 Masters With Unit 1 81

Tree Sums

Begin in the middle of the tree trunk. Draw a path through the maze so that the sum of the numbers equals the number on the tree.



NAME

SPM 3 Masters With Unit 2 82

Deep-Sea Patterns

Connect the dots in the two figures below following the pattern of the numbers.

NAME

SPM 3 Masters With Unit 3 83

Mystery Digits

Find the digits for each shape.

1.
$$\begin{array}{r} \square\ 5 \\ +\ 4\ \triangle \\ \hline 8\ 2 \end{array}$$

2.
$$\begin{array}{r} 2\ \square \\ +\ \triangle\ 2 \\ \hline 8\ 3 \end{array}$$

3.
$$\begin{array}{r} 8\ \square \\ +\ \square\ \square \\ \hline 1\ 1\ 6 \end{array}$$

4.
$$\begin{array}{r} 2\ 1\ \triangle \\ +\ 1\ \square\ 2 \\ \hline \square\ \triangle\ 6 \end{array}$$

5.
$$\begin{array}{r} 2\ \diamond\ 2 \\ +\ 4\ 9\ \triangle \\ \hline \diamond\ \triangle\ 8 \end{array}$$

6.
$$\begin{array}{r} \triangle\ 4\ \square \\ +\ 1\ 8\ \square \\ \hline \square\ 2\ 6 \end{array}$$

7.
$$\begin{array}{r} \square\ 0\ 8 \\ +\ \triangle\ 5 \\ \hline 4\ 0\ \square \end{array}$$

8.
$$\begin{array}{r} 4\ \square\ 5 \\ +\ \square\ 9\ 6 \\ \hline \triangle\ \square\ \square \end{array}$$

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SPM 3 Masters With Unit 4 84

Euler's Formula

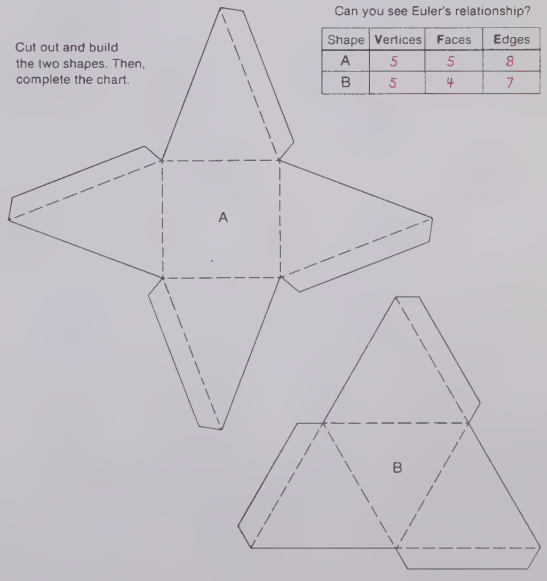
Leonard Euler lived in Europe from 1707 to 1783. He found that in a solid the sum of the number of vertices and the number of faces is equal to the number of the edges plus 2. His discovery, called *Euler's formula*, is:

Vertices + **F**aces = **E**dges + 2
or
V + F = E + 2

Can you see Euler's relationship?

Shape	**V**ertices	**F**aces	**E**dges
A	5	5	8
B	5	4	7

Cut out and build the two shapes. Then, complete the chart.



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SPM 3 Masters With Unit 5 85

Hidden Subtractions

There are 8 subtractions hidden in the chart below
One is given to you.
Can you find the rest?

391	445	60	423	488	49
728	162	191	7	157	302
− 193	605	41	200	331	11
535	18	22	1	256	443
210	241	19	842	3	83
394	939	239	571	83	7
52	460	315	271	750	76
342	278	122	420	78	2
6	182	528	68	5	88
100	74	10	12	73	222

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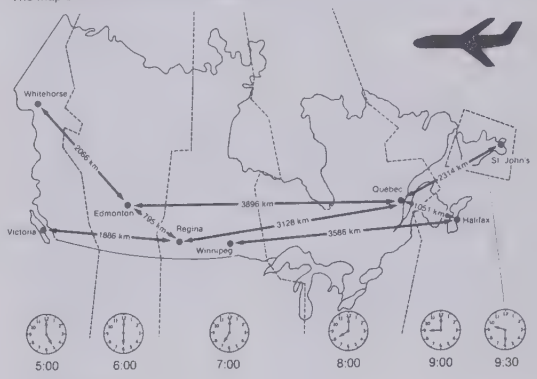
Time Zones

The world is divided into 24 time zones.
The map below shows some time zones in Canada.



Complete the flight chart.

Flight	Departure	Arrival	Distance Travelled
Edmonton - Québec	9:20	4:35	3896 km
Halifax - Winnipeg	8:40	11:30	3586 km
Whitehorse - Regina	12:30	5:55	2861 km
Halifax - Québec	9:00	9:00	1051 km

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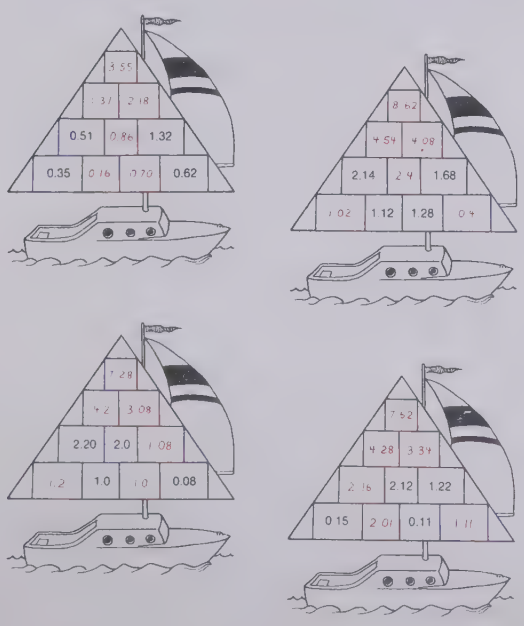
SPM 3 Masters With Unit 7 87

Pyramid Power Boats

Complete the sails of the boat. In any box the number is equal to the sum of the two decimal numbers of the two boxes underneath.

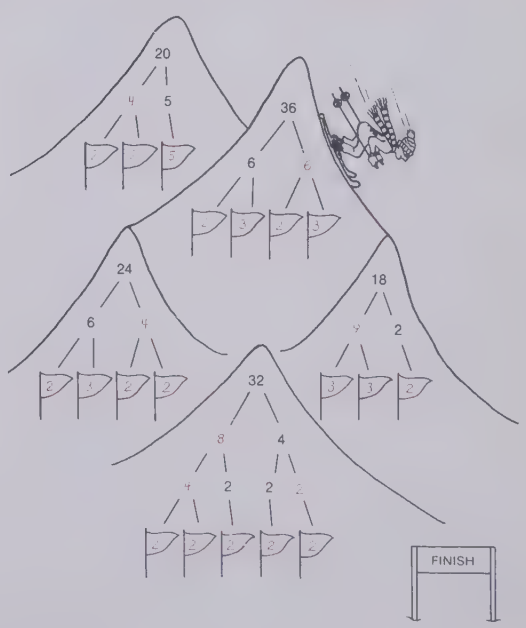


NAME

SPM 3 Masters With Unit 8 88

Factoring Fun

Help the skier down the mountain.
Find the factors that equal the product above them. *Answers may vary*

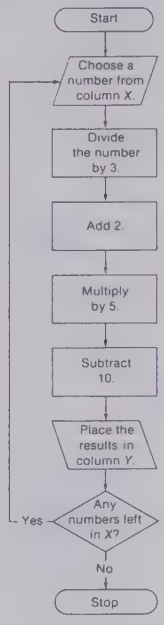


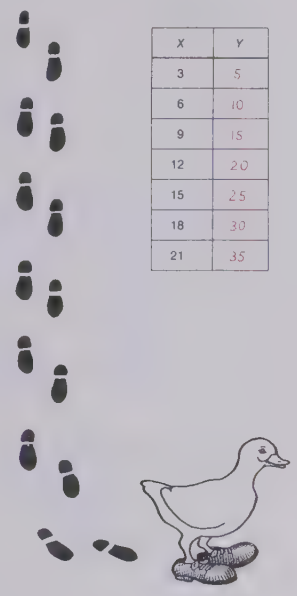
NAME

SPM 3 Masters With Unit 9 89

Quacky Flow Chart

Put the correct number in column *Y* by following the flow chart step by step.





X	Y
3	5
6	10
9	15
12	20
15	25
18	30
21	35

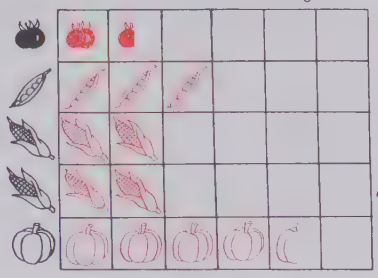
NAME

SPM 3 Masters With Unit 10 90

Planning a Garden

A pictograph uses pictures to show numbers.

Follow the directions below to make a pictograph.



Each stamp is equal to 4 plants. Cut and paste the stamps onto the pictograph to show:

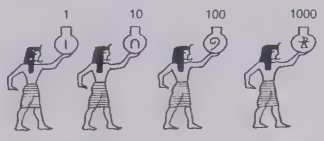
6 tomato plants
12 pea plants
16 stalks of corn in two even rows
18 pumpkin plants

Cut and paste. 1 stamp = 4 plants

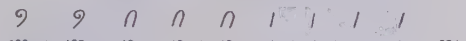
NAME

SPM 3 Masters With Unit 11 91

Egyptian Numbers

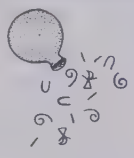


Some Egyptian symbols and their values are given above. The Egyptians would add the numbers that these symbols represent this way.



100 + 100 + 10 + 10 + 10 + 1 + 1 + 1 + 1 + 1 = 234

Can you find the number for the Egyptian symbols?



1. ∩∩||||| = 24
2. 𓍢∩∩∩∩∩∩∩||| = 164
3. 𓍢𓍢𓍢𓍢𓍢∩∩∩∩∩∩∩ = 570
4. 𓆑𓆑𓆑𓆑 𓍢𓍢∩∩∩| = 4231
5. 𓆑𓆑𓆑𓆑𓆑𓆑𓍢𓍢 = 6200
6. 𓆑𓆑∩∩∩∩|||||| = 2046

7. Tut's teacher scratched the date 2452 B.C. in the sand. Can you write in Egyptian numerals?

   𓆑𓆑𓍢𓍢𓍢𓍢∩∩∩∩∩||

8. 324 Roman legions were seen marching in the desert. How was the number recorded in Egyptian numerals sent to Cairo?

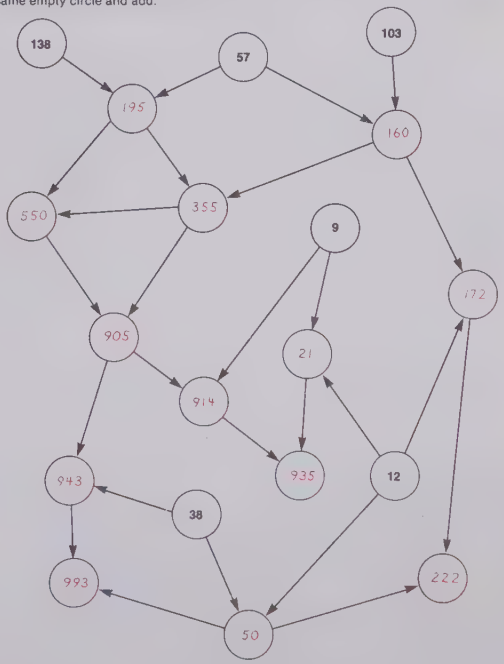
   𓍢𓍢𓍢∩∩|||||

NAME

SPM 3 Masters With Unit 12 92

Addition Puzzle

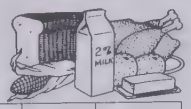
Complete the puzzle. Take the two numbers whose arrows point to the same empty circle and add.



NAME

SPM 3 Masters With Unit 13 — 93

Food That's Good for You



Nutritious Food	Measure	Food Energy (calories)	Calcium (mg)	Vitamin A (IU)
milk	$\frac{1}{2}$ L	320	567	700
cream	$\frac{1}{2}$ L	1780	358	7340
chicken	93 g	115	8	80
corn	1 ear	70	2	310
orange juice	1 can	360	75	1620
bread	1 loaf	1225	381	—
butter	60 g	810	23	3750

1. Mrs. Lauzon's students are planning a picnic. David is bringing 2 loaves of bread and 120 g of butter. How much food energy is in the food David is bringing?

   4070 calories

2. The food Robin's mom put in the shopping cart had a Vitamin A content of 9128 IU. She decided to put $\frac{1}{2}$ L of cream back on the shelf. How much Vitamin A was in the food left in the cart?

   1788 IU

3. The dentist told Laura she needs more calcium in her diet to make her teeth strong. For lunch she drank $\frac{1}{2}$ L of milk and ate 93 g of chicken. How many milligrams of calcium did Laura have?

   575 mg

4. When Marc runs a race his body burns up 1129 calories. If he stops to drink one can of orange juice while racing, how many calories will he lose during the race?

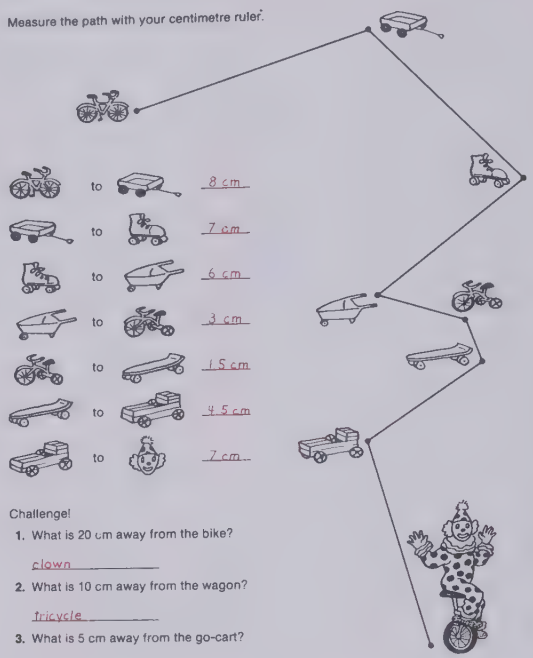
   769 calories

NAME

SPM 3 Masters With Unit 14 — 94

Centimetre Path

Measure the path with your centimetre ruler.



Challenge!

1. What is 20 cm away from the bike?

   clown

2. What is 10 cm away from the wagon?

   tricycle

3. What is 5 cm away from the go-cart?

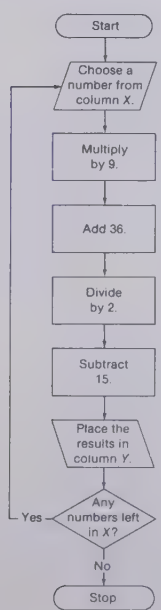
   tricycle

NAME

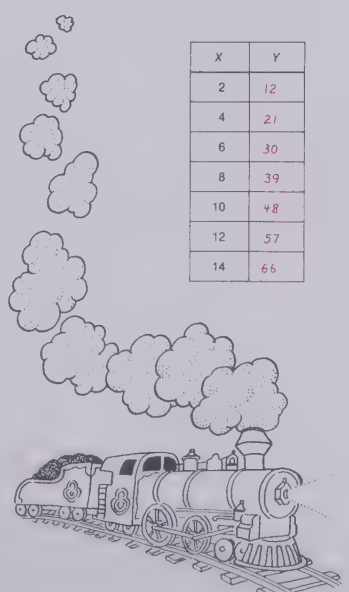
SPM 3 Masters With Unit 15 — 95

Steamy Flow Chart

Put the correct number in column *Y* by following the steps in the flow chart.



X	Y
2	12
4	21
6	30
8	39
10	48
12	57
14	66



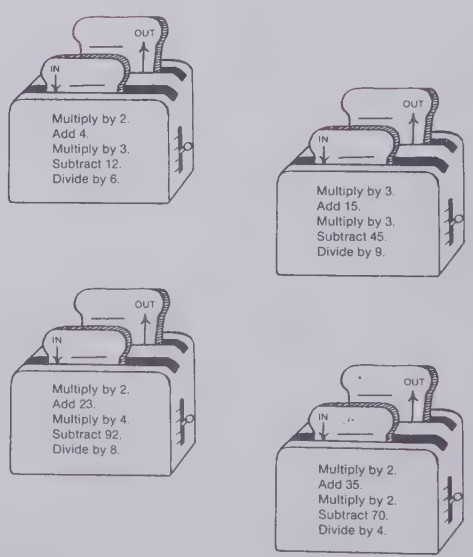
NAME

SPM 3 Masters With Unit 16 — 96

Tricky Toasters

Put any number less than 20 on the piece of bread marked "in." Follow the directions on the toaster and place the "new number" on the toast.

Numbers will vary. But same number will be on bread and toast.



Sums to 10

4 airplanes + 3 airplanes = 7 airplanes

addend addend sum

Write an addition sentence for each picture.

1. 

____ + ____ = ____

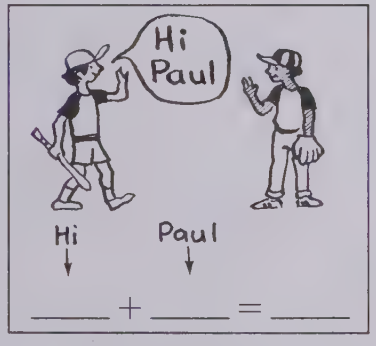
2. 

____ + ____ = ____

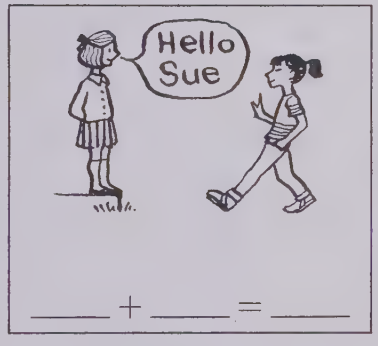
Add.

3. 3 + 4	**4.** 5 + 3	**5.** 7 + 1	**6.** 4 + 5	**7.** 2 + 3	**8.** 5 + 2
9. 1 + 6	**10.** 2 + 5	**11.** 3 + 1	**12.** 4 + 6	**13.** 4 + 4	**14.** 8 + 1

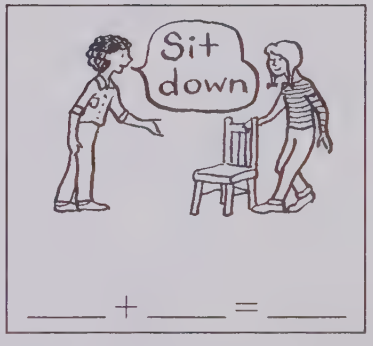
Count the number of letters in each word. Write an addition sentence to show how many letters in all.

15. 

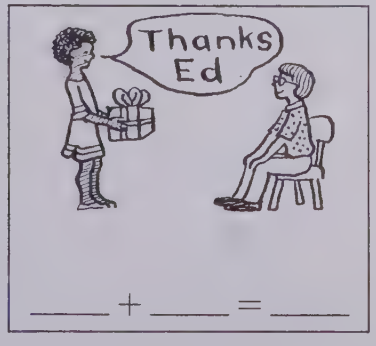
____ + ____ = ____

16. 

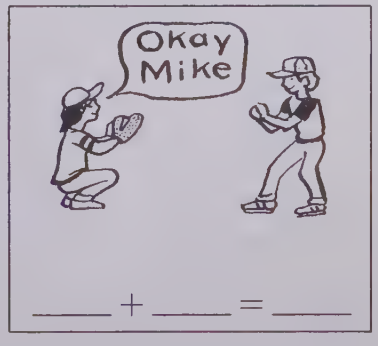
____ + ____ = ____

17. 

____ + ____ = ____

18. 

____ + ____ = ____

19. 

____ + ____ = ____

20. 

____ + ____ = ____

7 7 2 + 3 = 5 2 + 4 = 6

NAME

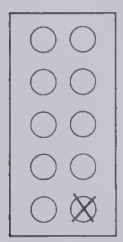
Minuends to 10

Here are 7 children.
3 swim away.
Cover 3 of the children.
There are 4 children left.

We can write a subtraction sentence. $7 - 3 = 4$

Write a subtraction sentence for each.

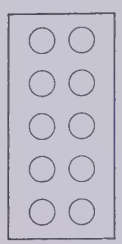
1.



10 dots.
Put an X on 1 dot.

10 − 1 = ____

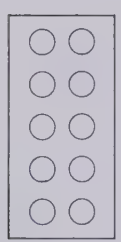
2.



____ dots.
Put an X on 3 dots.

____ − ____ = ____

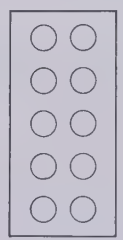
3.



____ dots.
Put an X on 5 dots.

____ − ____ = ____

4.



____ dots.
Put an X on 6 dots.

____ − ____ = ____

Subtract.

5. $6 - 1 =$ ____

6. $10 - 2 =$ ____

7. $9 - 4 =$ ____

8. 9 − 5	**9.** 8 − 1	**10.** 7 − 3	**11.** 10 − 4	**12.** 6 − 2	**13.** 9 − 2
14. 7 − 5	**15.** 5 − 2	**16.** 8 − 1	**17.** 6 − 3	**18.** 8 − 2	**19.** 6 − 4
20. 4 − 3	**21.** 9 − 6	**22.** 6 − 5	**23.** 8 − 4	**24.** 9 − 3	**25.** 7 − 6

Sums to 18

Silvana bought 9 red apples and 5 green apples.
How many apples did she buy in all?

9 + 5 = 14

Silvana bought 14 apples.

Write an addition sentence for each picture.

1. 

_____ + _____ = _____

2. 

_____ + _____ = _____

Add.

3. 7 + 6 = _____ **4.** 8 + 3 = _____ **5.** 6 + 7 = _____

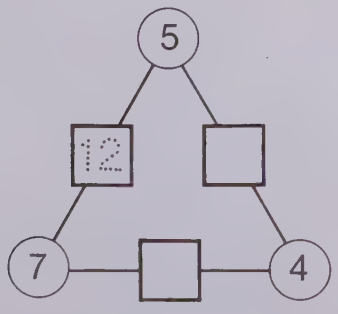
6. 9 + 5 = _____ **7.** 7 + 5 = _____ **8.** 1 + 8 = _____

9.	**10.**	**11.**	**12.**	**13.**	**14.**
9	4	8	7	8	7
+2	+9	+4	+7	+9	+5

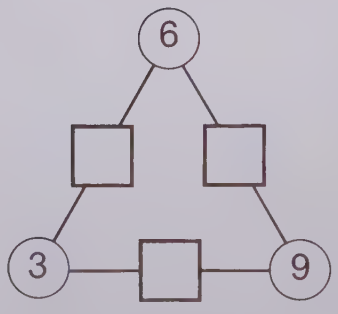
15.	**16.**	**17.**	**18.**	**19.**	**20.**
8	7	5	6	3	8
+6	+8	+6	+8	+9	+5

Write the sum in each square.

21.



22.



11 14 = 9 + 8 13 14 14

Minuends to 18

Here are 18 birds.
3 fly away.
How many are left?

We can write a subtraction sentence.

$$\begin{array}{r} 18 \\ -\ 3 \\ \hline 15 \end{array}$$

There are 15 birds left.

Write a subtraction sentence for each picture.

1.

_____ − _____ = _____

2.

_____ − _____ = _____

Subtract.

3. 12 − 6 = ____ **4.** 15 − 6 = ____ **5.** 11 − 8 = ____

6. 14 − 5 = ____ **7.** 16 − 7 = ____ **8.** 12 − 5 = ____

9. 18 − 8	**10.** 13 − 5	**11.** 15 − 8	**12.** 14 − 7	**13.** 12 − 8	**14.** 16 − 5
15. 16 − 9	**16.** 18 − 9	**17.** 13 − 6	**18.** 17 − 7	**19.** 16 − 8	**20.** 14 − 8

Complete the subtraction squares.
Find the magic difference in the corner.

21. − →

↓		
16	8	
9	3	

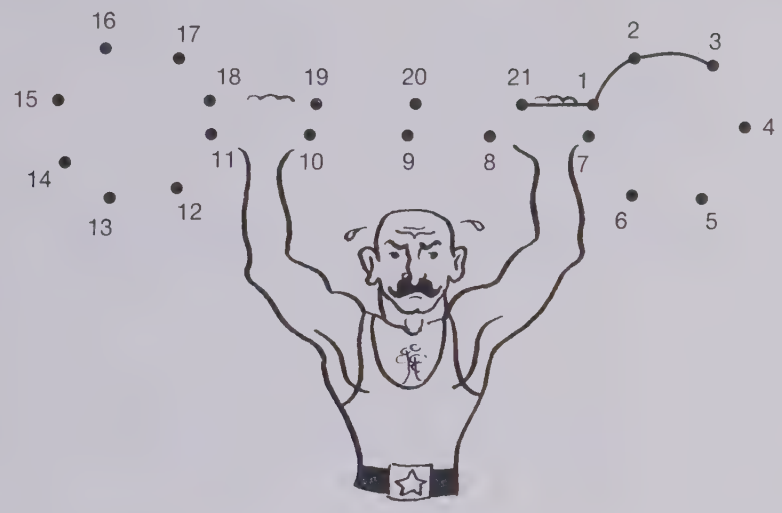
22. − →

↓		
17	9	
8	7	

9 14 − 2 = 12 7 6 10

Numbers to 99

We can connect the numbers in order.
Finish the dot-to-dot.



Write the missing numerals.

1. 15, 16, _____, _____, 19, 20, 21, _____, _____, 24

2. 54, 55, _____, 57, _____, 59, _____, 61, _____, 63

What comes after?

3. 17 _____ **4.** 29 _____ **5.** 41 _____

6. 57 _____ **7.** 63 _____ **8.** 72 _____

What comes before?

9. _____ 11 **10.** _____ 53 **11.** _____ 78

12. _____ 29 **13.** _____ 99 **14.** _____ 31

Match.

17
24
35
51
70

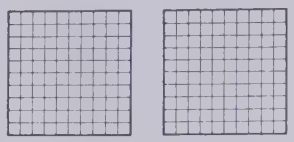
thirty-five
seventy
twenty-four
seventeen
fifty-one

56, 58, 60, 62 10 17, 18, 22, 23 18 58 28

NAME

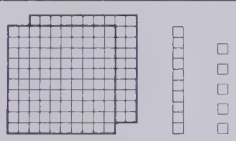
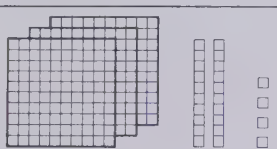
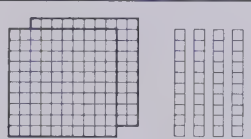
Numbers to 999

We can show the number two hundred thirty-five this way.

hundreds	tens	ones
		
2 hundreds	3 tens	5 ones

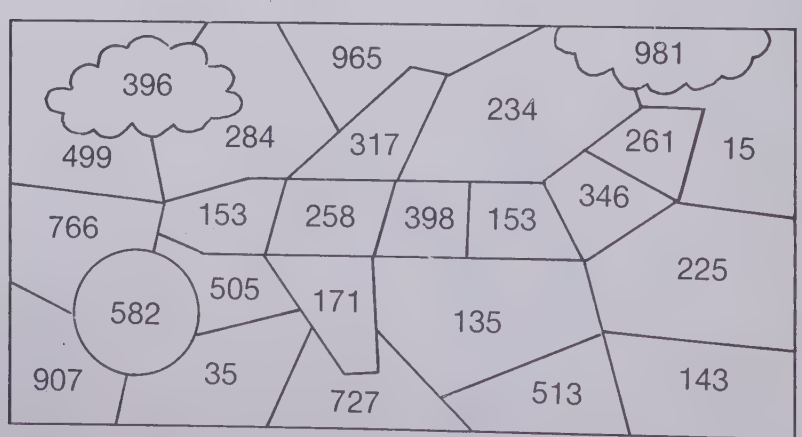
200 + 30 + 5 = 235

Complete the chart.

	hundreds	tens	ones	numeral	word name
1. 					
2. 					
3. 					
4. 					

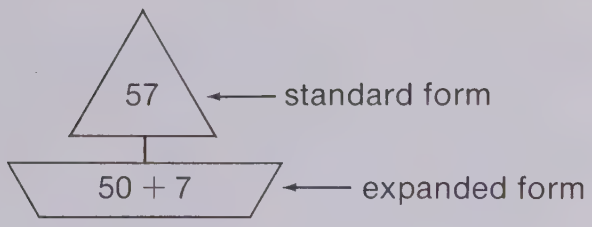
Shade all the numerals with:

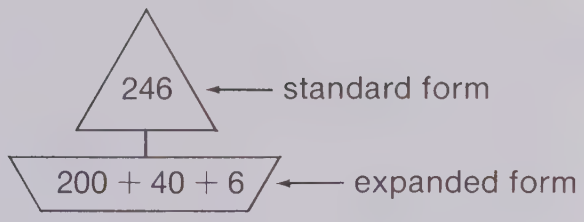
- 3 in the hundreds place
- 5 in the tens place
- 1 in the ones place



2, 1, 5; 215; two hundred fifteen

Expanded Form

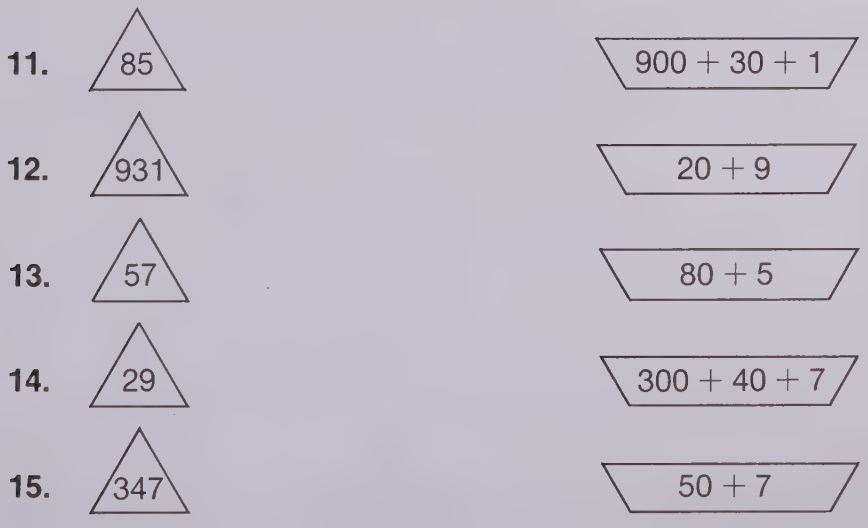




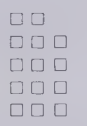
Complete the chart.

	Word name	Standard form	Expanded form
1.	sixty-three		
2.	seventy-one		
3.	eighty		
4.		231	
5.		586	
6.			70 + 6
7.		337	
8.	nine hundred twenty-five		
9.			400 + 20 + 5
10.	two hundred forty		

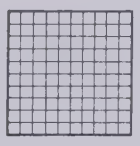
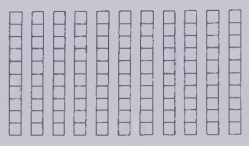
Draw a line to match.



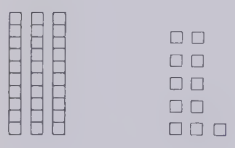
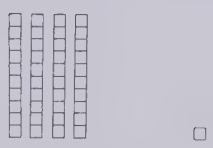
Regrouping

14	 14 ones	or	 1 ten	 4 ones

32	 3 tens	 2 ones	or	 2 tens	 12 ones

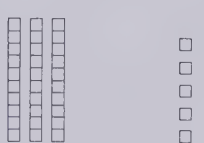
112	 1 hundred	 1 ten	 2 ones	or	 11 tens	 2 ones

Regroup to show more tens.

1.  or 

_____ tens _____ ones

_____ tens _____ one = _____

2.  or 

_____ tens _____ ones

_____ tens _____ ones = _____

3. 5 tens 14 ones

= _____ tens _____ ones

4. 6 tens 15 ones

= _____ tens _____ ones

5. 7 tens 11 ones

= _____ tens _____ ones

6. 4 tens 13 ones

= _____ tens _____ ones

7. 2 tens 14 ones

= _____ tens _____ ones

8. 5 tens 16 ones

= _____ tens _____ ones

9. 12 tens

= _____ hundred _____ tens

10. 16 tens 4 ones

= _____ hundred _____ tens _____ ones

 2, 15, 3, 5  3, 11, 4, 1  6, 4  1, 2  3, 4  8, 1

Comparing and Ordering Numbers

Compare 561 and 539.
Compare each digit. Start at the left.

hundreds	tens	ones
5	6	1
5	3	9

same

6 tens is greater than 3 tens,
so, 561 is greater than 539.

We can write $561 > 539$.

Circle the greater number.

1. 6 or 8 **2.** 7 or 11 **3.** 27 or 62

4. 59 or 60 **5.** 246 or 313 **6.** 490 or 489

Write $>$ or $<$ to make true sentences.

7. 85 ____ 36 **8.** 35 ____ 29 **9.** 14 ____ 24

10. 65 ____ 71 **11.** 81 ____ 18 **12.** 96 ____ 99

13. 315 ____ 217 **14.** 179 ____ 180 **15.** 213 ____ 218

Robin played 4 games of Rocket Ship Racer. These are her scores.
Put the scores in order from least to greatest.

16. 26, 83, 75, 15 _____

17. 86, 71, 105, 93 _____

18. 111, 99, 115, 100 _____

19. 515, 368, 245, 401 _____

60 8 15, 26, 75, 83 < > <

NAME

Naming Amounts of Money

Ann-Marie is buying a game for four dollars and thirty-five cents.

This shows how much she spends.

How much?

1.  ____ ¢

2.  ____ ¢

3. 

$____

4. 

$____

Write each amount using numerals.

5. sixty-two cents _____

6. fifty-eight cents _____

7. two dollars and nineteen cents _____

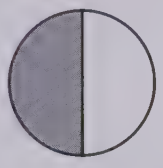
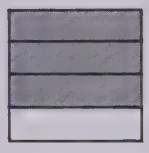
8. six dollars and five cents _____

Go shopping. Draw the correct number of dimes and pennies on the chart next to each item.

23¢ 62¢ $2.19 $2.12

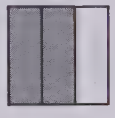
Naming Fractions

Fractions less than 1			
	Number of equal parts	Number of parts shaded	Fraction
	2	1	$\frac{1}{2}$
	4	3	$\frac{3}{4}$

Fractions greater than 1	
	$2\frac{1}{2}$
	$2\frac{1}{3}$

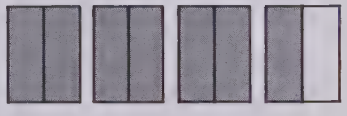
How much is shaded?

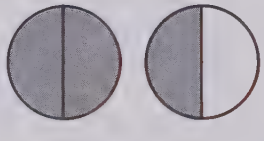
1. 

2. 

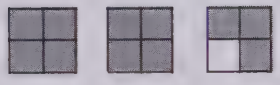
3. 

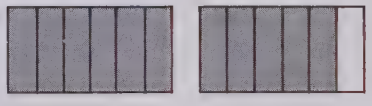
4. 

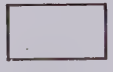
5. 

6. 

7. 

8. 

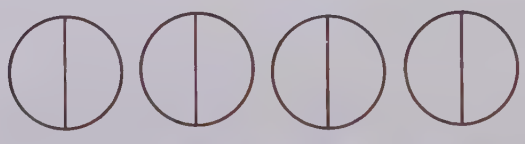
9. 

10. Here are 3  's.

Shade $2\frac{1}{4}$.

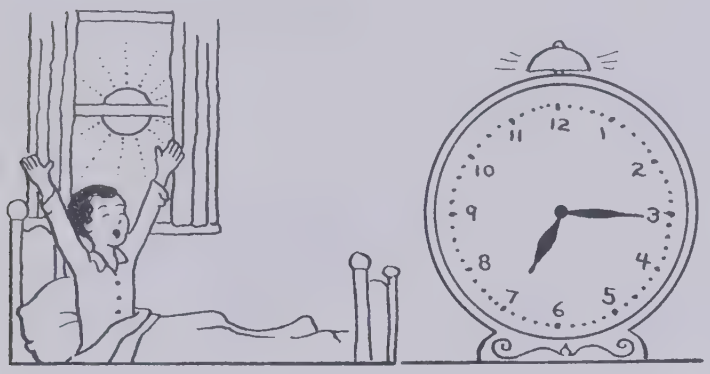
11. Here are 4  's.

Shade $3\frac{1}{2}$.



$\frac{1}{3}$ $\frac{1}{2}$ $3\frac{2}{3}$

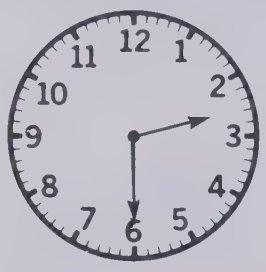
Reading a Clock



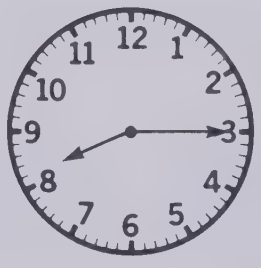
This clock shows 7:15.

The long hand shows the minutes.
The short hand shows the hour.

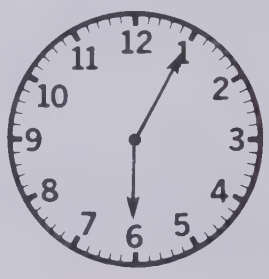
What time is it?

1. 

_____

2. 

_____

3. 

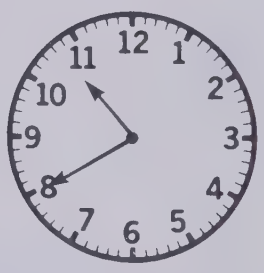
_____

4. 

_____

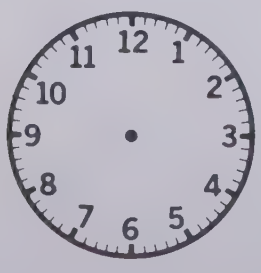
5. 

_____

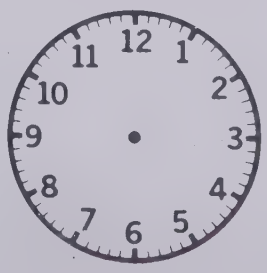
6. 

_____

Draw the hands to show the time on each clock.

7. 

8:25

8. 

4:20

9. 

2:05

2:30 4:45

Addition, No Regrouping

Add 312 and 236.

Add the ones.	Add the tens.	Add the hundreds.
3 1 **2** + 2 3 **6** **8**	3 **1** 2 + 2 **3** 6 **4** 8	**3** 1 2 + **2** 3 6 **5** 4 8

The sum of 312 and 236 is 548.

Add.

1. 43 + 36

2. 25 + 72

3. 15 + 44

4. 28 + 61

5. 353 + 246

6. 421 + 363

7. 786 + 211

8. 147 + 420

9. 434 + 15

10. 5 + 911

11. 12 + 456

12. 353 + 415

Add to complete each chart.

13.

+			
500	10	6	516
200	30	2	
700			

14.

+			
300	30	5	
400	50	3	

14.

+			
600	20	1	
100	40	7	

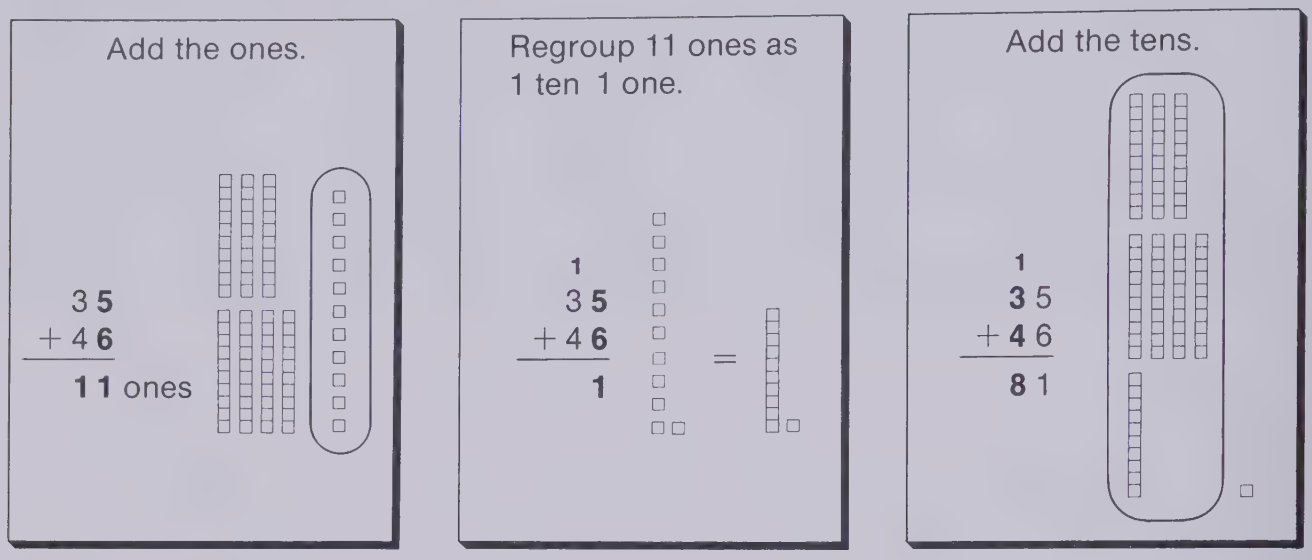
16.

+			
700	50	6	
200	10	1	

599 79 449

Addition, Regrouping Ones to Tens

Add 35 and 46.

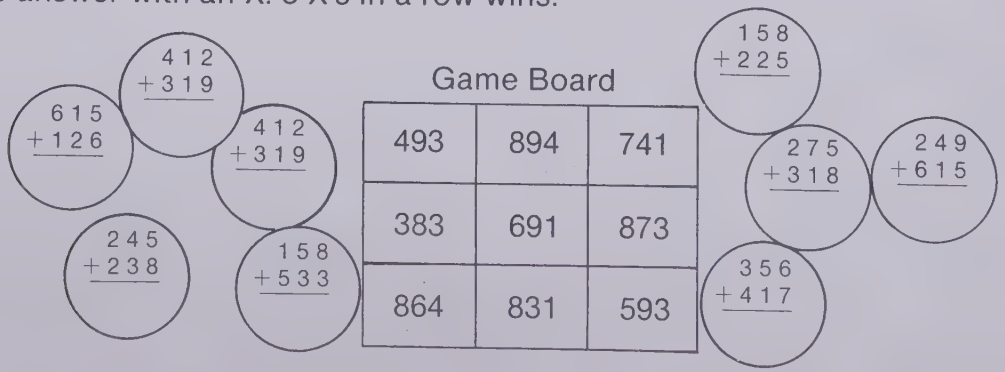


The sum of 35 and 46 is 81.

Add.

1. 36 +55	**2.** 47 +28	**3.** 58 +36	**4.** 73 +19
5. 77 +13	**6.** 24 +28	**7.** 38 +48	**8.** 55 +27
9. 214 + 39	**10.** 456 + 17	**11.** 226 +145	**12.** 528 +328

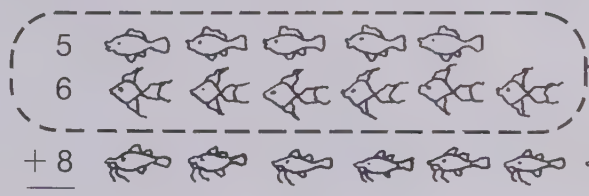
Pick any problem. Add. Find your answer on the game board.
Mark the answer with an X. 3 X's in a row wins.



Adding Three Numbers

Evan has 5 goldfish, 6 angelfish, and 8 catfish.
How many fish does he have in all?

Add 5 + 6 + 8.



$$\begin{array}{r} 11 \\ +\ 8 \\ \hline 19 \end{array}$$

Evan has 19 fish in all.

Complete.

1.

$$\begin{array}{r} 4 \\ 8 \\ +\ 6 \\ \hline \end{array} \qquad \begin{array}{r} \\ \\ +\ 6 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 9 \\ 8 \\ +\ 3 \\ \hline \end{array} \qquad \begin{array}{r} \\ \\ +\ 3 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 5 \\ 7 \\ +\ 6 \\ \hline \end{array} \qquad \begin{array}{r} \\ \\ +\ 6 \\ \hline \end{array}$$

4.

$$\begin{array}{r} 7 \\ 7 \\ +\ 5 \\ \hline \end{array} \qquad \begin{array}{r} \\ \\ +\ 5 \\ \hline \end{array}$$

Add.

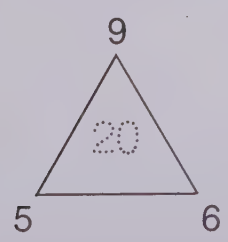
5. $\begin{array}{r} 7 \\ 5 \\ +\ 2 \\ \hline \end{array}$ **6.** $\begin{array}{r} 2 \\ 5 \\ +\ 7 \\ \hline \end{array}$ **7.** $\begin{array}{r} 3 \\ 8 \\ +\ 6 \\ \hline \end{array}$ **8.** $\begin{array}{r} 6 \\ 8 \\ +\ 3 \\ \hline \end{array}$ **9.** $\begin{array}{r} 5 \\ 6 \\ +\ 4 \\ \hline \end{array}$

10. 5 + 8 + 3 = ____ **11.** 7 + 8 + 3 = ____ **12.** 9 + 2 + 4 = ____

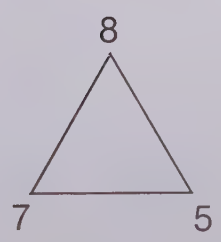
13. 4 + 9 + 5 = ____ **14.** 6 + 8 + 7 = ____ **15.** 9 + 3 + 1 = ____

Write the sum in each triangle.

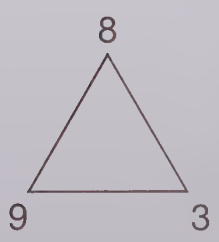
16.



17.



18.



18 16 14 12, 18 12, 18

Addition, Regrouping Tens to Hundreds

Enza has 246 stamps. Her sister has 381 stamps.
How many do they have in all?

Add 381 and 246.

Add the ones.	Add the tens.	Add the hundreds.
3 8 **1** + 2 4 **6** **7**	**1** 3 **8** 1 + 2 **4** 6 **2** 7 Regroup 12 tens as 1 hundred 2 tens.	**1** **3** 8 1 + **2** 4 6 **6** 2 7

They have 627 stamps in all.

Add.

1. 677 + 281

2. 592 + 263

3. 645 + 193

4. 248 + 381

5. 150 + 375

6. 493 + 271

7. 743 + 191

8. 340 + 270

What is the mystery number? Add. Shade the answers in the chart.
The number that is left is the mystery number.

9. 397 + 221

10. 246 + 590

11. 212 + 695

12. 536 + 281

13. 581 + 176

14. 453 + 291

15. 666 + 273

16. 482 + 321

618	757	803	836	536
	907	939	744	
		817		

525 618 757 958

Addition, Two Regroupings

Add 327 and 185.

Add the ones.	Add the tens.	Add the hundreds.
$\begin{array}{r} {\scriptstyle 1} \\ 327 \\ +185 \\ \hline 2 \end{array}$	$\begin{array}{r} {\scriptstyle 11} \\ 327 \\ +185 \\ \hline 12 \end{array}$	$\begin{array}{r} {\scriptstyle 1} \\ 327 \\ +185 \\ \hline 512 \end{array}$
Regroup 12 ones as 1 ten 2 ones.	Regroup 11 tens as 1 hundred 1 one.	

The sum of 327 and 185 is 512.

Add.

1. $\begin{array}{r} 465 \\ +258 \\ \hline \end{array}$ **2.** $\begin{array}{r} 684 \\ +137 \\ \hline \end{array}$ **3.** $\begin{array}{r} 546 \\ +285 \\ \hline \end{array}$ **4.** $\begin{array}{r} 693 \\ +159 \\ \hline \end{array}$

5. $\begin{array}{r} 345 \\ +399 \\ \hline \end{array}$ **6.** $\begin{array}{r} 286 \\ +446 \\ \hline \end{array}$ **7.** $\begin{array}{r} 379 \\ +281 \\ \hline \end{array}$ **8.** $\begin{array}{r} 489 \\ +345 \\ \hline \end{array}$

Add. Follow the path of your answers in order from start to finish.

9. $\begin{array}{r} 453 \\ +298 \\ \hline \end{array}$ **10.** $\begin{array}{r} 358 \\ +287 \\ \hline \end{array}$ **11.** $\begin{array}{r} 476 \\ +385 \\ \hline \end{array}$ **12.** $\begin{array}{r} 452 \\ +258 \\ \hline \end{array}$

13. $\begin{array}{r} 564 \\ +268 \\ \hline \end{array}$ **14.** $\begin{array}{r} 185 \\ +488 \\ \hline \end{array}$ **15.** $\begin{array}{r} 625 \\ +275 \\ \hline \end{array}$ **16.** $\begin{array}{r} 546 \\ +385 \\ \hline \end{array}$

START → 751 | 601 | 832 | 673

645 | 861 | 710 | 900

812 | 901 | 611 | 931 → EXIT

744 723 751 832

NAME _____

Adding Amounts of Money

Helen spent $6.65 for a game of Monopoly and $2.98 for a game of chess. How much did she spend in all?

Add $6.65 and $2.98.

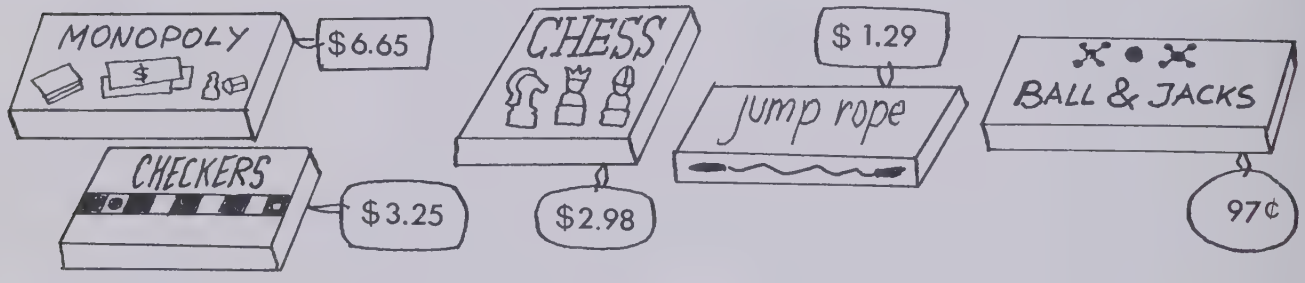
Helen spent $9.63 in all.

$$\begin{array}{r} \$6.65 \\ +\ 2.98 \\ \hline \$9.63 \end{array}$$

Add.

1. $\begin{array}{r} \$6.29 \\ +\ 1.73 \\ \hline \end{array}$ **2.** $\begin{array}{r} \$5.59 \\ +\ 2.72 \\ \hline \end{array}$ **3.** $\begin{array}{r} \$3.75 \\ +\ 2.38 \\ \hline \end{array}$ **4.** $\begin{array}{r} \$4.54 \\ +\ 2.56 \\ \hline \end{array}$

5. $\begin{array}{r} \$1.59 \\ +\ 1.65 \\ \hline \end{array}$ **6.** $\begin{array}{r} \$2.98 \\ +\ 3.24 \\ \hline \end{array}$ **7.** $\begin{array}{r} \$4.38 \\ +\ 4.83 \\ \hline \end{array}$ **8.** $\begin{array}{r} \$1.55 \\ +\ 2.78 \\ \hline \end{array}$



Solve.

9. Mario wants to buy a chess game and a checkers game. How much will they cost in all? _____

10. Minta wants to buy a jump rope and a chess game. How much money does Minta need? _____

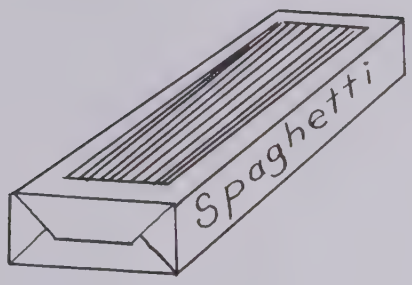
11. Sara wants to buy a Monopoly game and a ball and jacks game. How much money does she need? _____

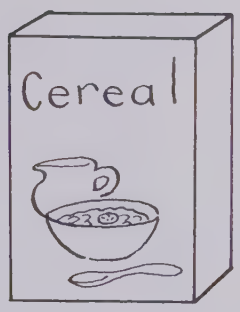
12. Peter would like to buy a jump rope and a checkers game. He has $5.00. Is that enough? _____

$8.02 $6.23 $3.24

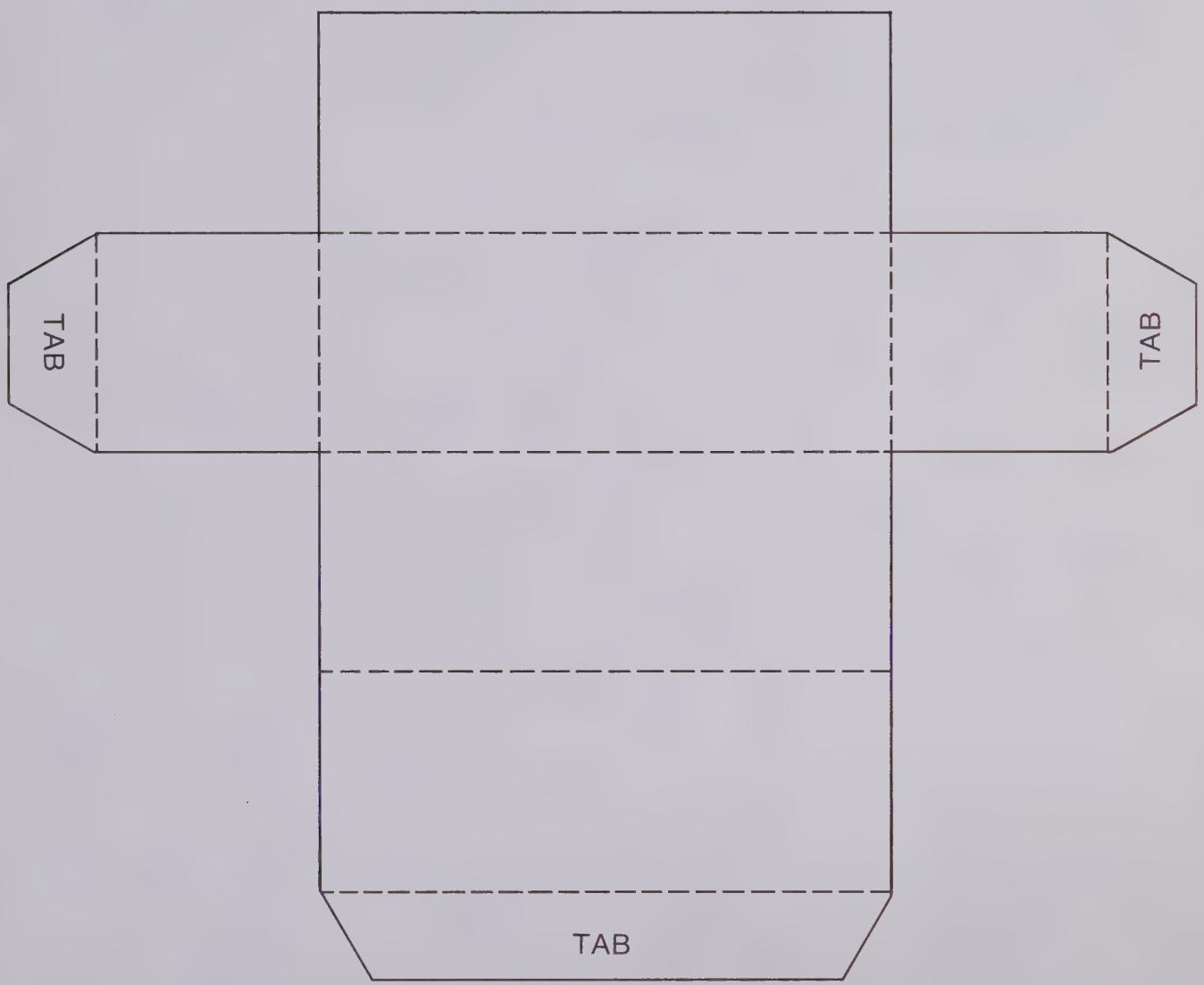
Solids

These are prisms.





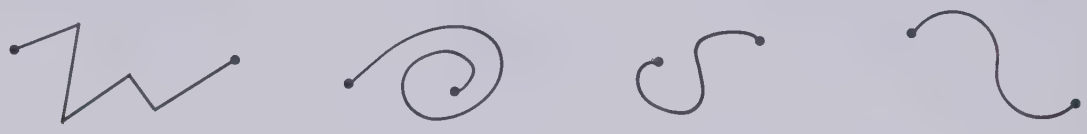
Make a prism. Cut along the solid lines.
Fold on the dotted lines. Paste the tabs.



Line Segments

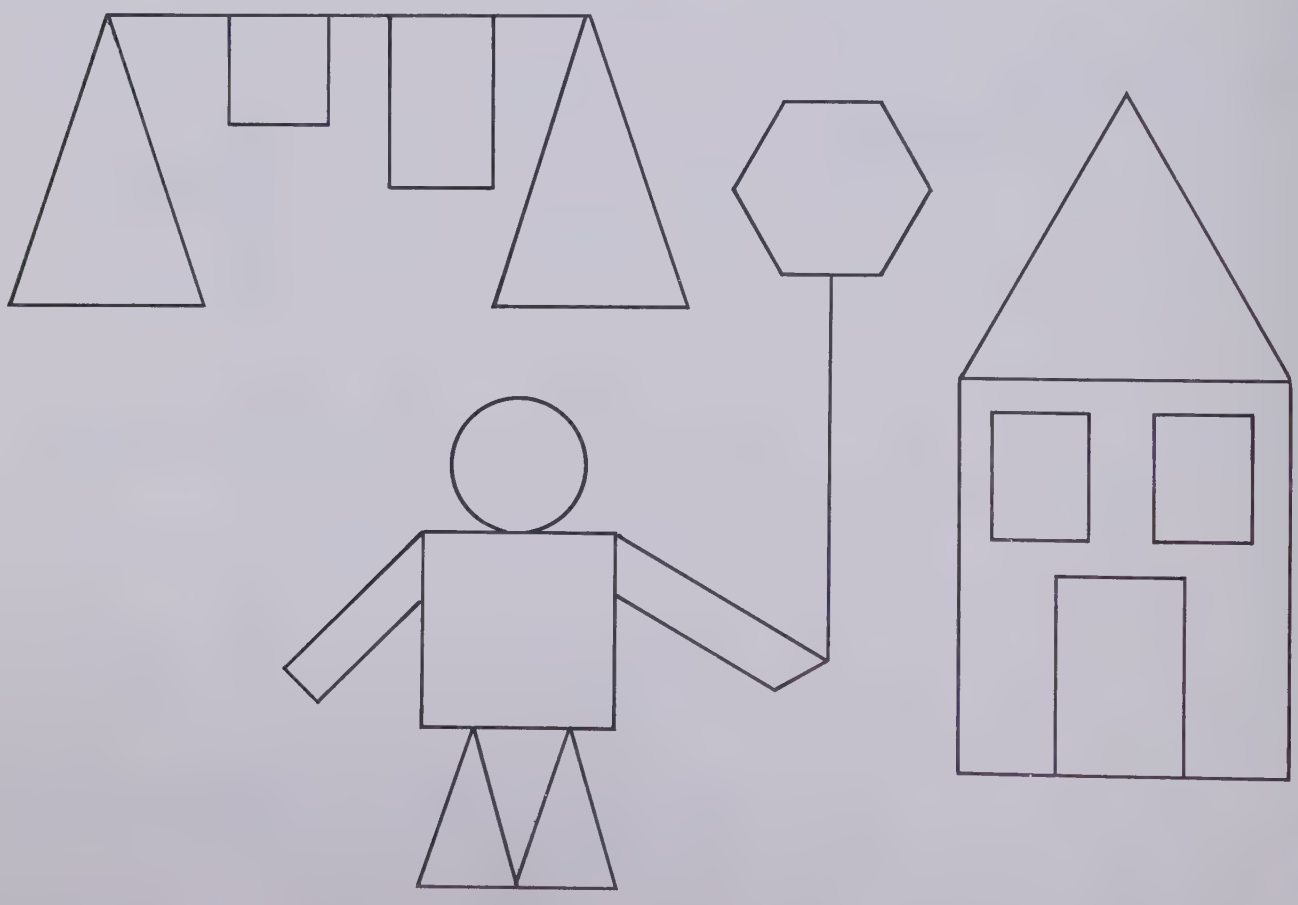
These are line segments.

These are not line segments.



A figure made up of line segments is called a polygon.

Draw a green outline around the polygons that are made up of 3 line segments.
Draw a blue outline around the polygons that are made up of 4 line segments.
Draw a red outline around the polygon that is made up of 5 line segments.
Draw an orange outline around the polygon that is made up of 6 line segments.
Color the figure that is not a polygon purple.



Subtraction, No Regrouping

Subtract 151 from 287.

Subtract the ones.	Subtract the tens.	Subtract the hundreds.
2 8 **7** − 1 5 **1** **6**	2 **8** 7 − 1 **5** 1 **3** 6	**2** 8 7 − **1** 5 1 **1** 3 6

The difference between 287 and 151 is 136.

Subtract.

1. 434 − 123

2. 875 − 244

3. 768 − 514

4. 545 − 103

5. 278 − 153

6. 362 − 151

7. 458 − 237

8. 844 − 422

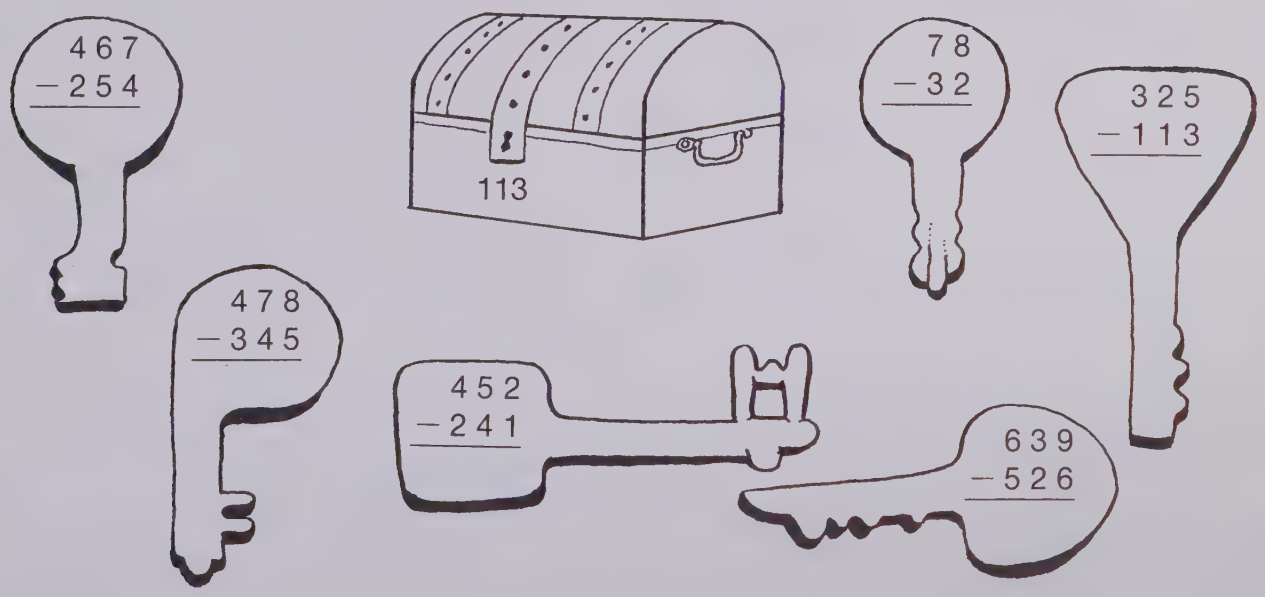
9. 457 − 216

10. 636 − 524

11. 947 − 635

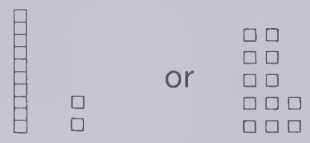
12. 828 − 716

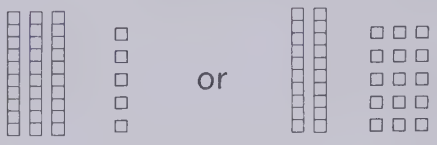
Which key opens the treasure? Subtract.
The key whose difference is 113 is the correct key.



241 311 125

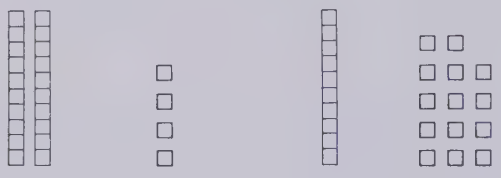
Regrouping

12		1 ten 2 ones or 12 ones

35		3 tens 5 ones or 2 tens 15 ones

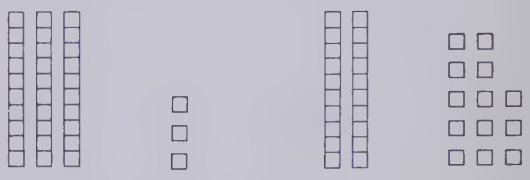
Regroup to show more ones.

1.



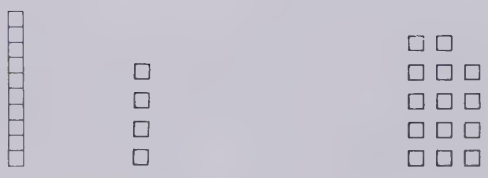
___ tens ___ ones = ___ ten ___ ones

2.



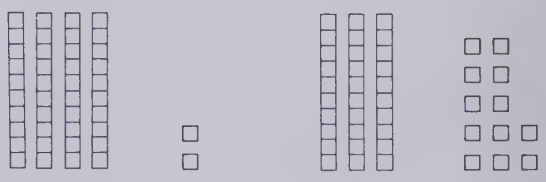
___ tens ___ ones = ___ tens ___ ones

3.



___ ten ___ ones = ___ tens ___ ones

4.



___ tens ___ ones = ___ tens ___ ones

5. 4 tens 2 ones = _____ tens _____ ones

6. 7 tens 1 one = _____ tens _____ ones

7. 9 tens 6 ones = _____ tens _____ ones

8. 8 tens 4 ones = _____ tens _____ ones

9. 2 tens 7 ones = _____ ten _____ ones

10. 3 tens 5 ones = _____ tens _____ ones

11. 1 ten 6 ones = _____ ones

12. 1 ten 9 ones = _____ ones

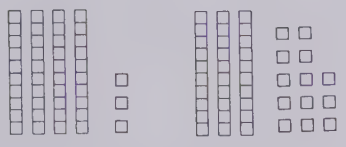
3, 12 2, 4, 1, 14

Subtraction, Regrouping Tens to Ones

Subtract 25 from 43.

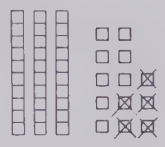
Regroup 4 tens 3 ones as 3 tens 13 ones.

$$\begin{array}{r} {}^{3}\cancel{4}\,{}^{13}\cancel{3} \\ -\,2\,5 \\ \hline \end{array}$$



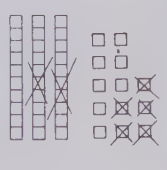
Subtract the ones.

$$\begin{array}{r} {}^{3}\cancel{4}\,{}^{13}\cancel{3} \\ -\,2\,5 \\ \hline 8 \end{array}$$



Subtract the tens.

$$\begin{array}{r} {}^{3}\cancel{4}\,{}^{13}\cancel{3} \\ -\,2\,5 \\ \hline 1\,8 \end{array}$$



The difference between 43 and 25 is 18.

Subtract.

1. $\begin{array}{r} 52 \\ -\,16 \\ \hline \end{array}$ **2.** $\begin{array}{r} 47 \\ -\,28 \\ \hline \end{array}$ **3.** $\begin{array}{r} 86 \\ -\,49 \\ \hline \end{array}$ **4.** $\begin{array}{r} 75 \\ -\,36 \\ \hline \end{array}$

5. $\begin{array}{r} 81 \\ -\,34 \\ \hline \end{array}$ **6.** $\begin{array}{r} 36 \\ -\,18 \\ \hline \end{array}$ **7.** $\begin{array}{r} 46 \\ -\,\,8 \\ \hline \end{array}$ **8.** $\begin{array}{r} 62 \\ -\,35 \\ \hline \end{array}$

9. $\begin{array}{r} 85 \\ -\,\,9 \\ \hline \end{array}$ **10.** $\begin{array}{r} 246 \\ -\,117 \\ \hline \end{array}$ **11.** $\begin{array}{r} 352 \\ -\,126 \\ \hline \end{array}$ **12.** $\begin{array}{r} 745 \\ -\,236 \\ \hline \end{array}$

Subtract to complete each chart.
Find the magic difference in the corner box.

13.

− → / ↓		
51	33	
26	17	

14.

− → / ↓		
35	18	
17	9	

47 36 76

Subtraction, Regrouping Hundreds to Tens

Subtract 245 from 526.

Subtract the ones.

$$\begin{array}{r} 526 \\ -245 \\ \hline 1 \end{array}$$

Regroup 5 hundreds 2 tens as 4 hundreds 12 tens.

Subtract the tens.

$$\begin{array}{r} 4\ 12 \\ 5\not{2}6 \\ -245 \\ \hline 81 \end{array}$$

Subtract the hundreds.

$$\begin{array}{r} 4\ 12 \\ 5\not{2}6 \\ -245 \\ \hline 281 \end{array}$$

The difference between 526 and 245 is 281.

Subtract.

1. $\begin{array}{r} 435 \\ -261 \\ \hline \end{array}$ **2.** $\begin{array}{r} 728 \\ -343 \\ \hline \end{array}$ **3.** $\begin{array}{r} 615 \\ -382 \\ \hline \end{array}$ **4.** $\begin{array}{r} 525 \\ -131 \\ \hline \end{array}$ **5.** $\begin{array}{r} 465 \\ -184 \\ \hline \end{array}$

Here is a code.

196	287	562	191	171	92	193	291	192	197	333	242
H	**S**	**Q**	**A**	**D**	**I**	**O**	**G**	**E**	**U**	**N**	**K**

What is Morty Mouse's favorite game? Subtract to find the message.

$\begin{array}{r} 447 \\ -251 \\ \hline \end{array}$	$\begin{array}{r} 226 \\ -134 \\ \hline \end{array}$	$\begin{array}{r} 336 \\ -165 \\ \hline \end{array}$	$\begin{array}{r} 545 \\ -353 \\ \hline \end{array}$

$\begin{array}{r} 426 \\ -235 \\ \hline \end{array}$	$\begin{array}{r} 617 \\ -284 \\ \hline \end{array}$	$\begin{array}{r} 436 \\ -265 \\ \hline \end{array}$

$\begin{array}{r} 527 \\ -236 \\ \hline \end{array}$	$\begin{array}{r} 654 \\ -461 \\ \hline \end{array}$

$\begin{array}{r} 848 \\ -561 \\ \hline \end{array}$	$\begin{array}{r} 743 \\ -181 \\ \hline \end{array}$	$\begin{array}{r} 358 \\ -161 \\ \hline \end{array}$	$\begin{array}{r} 645 \\ -453 \\ \hline \end{array}$	$\begin{array}{r} 444 \\ -253 \\ \hline \end{array}$	$\begin{array}{r} 515 \\ -273 \\ \hline \end{array}$

Subtraction, Two Regroupings

Subtract 299 from 585.

Regroup 8 tens 5 ones as 7 tens 15 ones.

Subtract the ones.

$$\begin{array}{r} {\scriptstyle 7\ 15} \\ 5\not{8}\not{5} \\ -\ 2\ 9\ 9 \\ \hline 6 \end{array}$$

Regroup 5 hundreds 7 tens as 4 hundreds 17 tens.

Subtract the tens.

$$\begin{array}{r} {\scriptstyle 17} \\ {\scriptstyle 4\ \not{7}\ 15} \\ \not{5}\not{8}\not{5} \\ -\ 2\ 9\ 9 \\ \hline 8\ 6 \end{array}$$

Subtract the hundreds.

$$\begin{array}{r} {\scriptstyle 17} \\ {\scriptstyle 4\ \not{7}\ 15} \\ \not{5}\not{8}\not{5} \\ -\ 2\ 9\ 9 \\ \hline 2\ 8\ 6 \end{array}$$

The difference between 585 and 299 is 286.

Subtract.

1. $\begin{array}{r} 453 \\ -\ 164 \\ \hline \end{array}$ **2.** $\begin{array}{r} 543 \\ -\ 265 \\ \hline \end{array}$ **3.** $\begin{array}{r} 416 \\ -\ 138 \\ \hline \end{array}$ **4.** $\begin{array}{r} 623 \\ -\ 346 \\ \hline \end{array}$

5. $\begin{array}{r} 136 \\ -\ 49 \\ \hline \end{array}$ **6.** $\begin{array}{r} 225 \\ -\ 146 \\ \hline \end{array}$ **7.** $\begin{array}{r} 332 \\ -\ 143 \\ \hline \end{array}$ **8.** $\begin{array}{r} 612 \\ -\ 438 \\ \hline \end{array}$

What is the mystery number? Subtract. Shade the answers below.

9. $\begin{array}{r} 415 \\ -\ 126 \\ \hline \end{array}$ **10.** $\begin{array}{r} 312 \\ -\ 155 \\ \hline \end{array}$ **11.** $\begin{array}{r} 532 \\ -\ 275 \\ \hline \end{array}$ **12.** $\begin{array}{r} 243 \\ -\ 165 \\ \hline \end{array}$

13. $\begin{array}{r} 635 \\ -\ 248 \\ \hline \end{array}$ **14.** $\begin{array}{r} 212 \\ -\ 157 \\ \hline \end{array}$ **15.** $\begin{array}{r} 352 \\ -\ 163 \\ \hline \end{array}$ **16.** $\begin{array}{r} 421 \\ -\ 136 \\ \hline \end{array}$

		55		
	189	387	256	
78	257	289	157	285

289 87 289 387

Subtraction, Regrouping with Zero

Subtract 152 from 301.

Regroup 301 as 30 tens 1 one.
Regroup 30 tens 1 one as
29 tens 11 ones.

$$\begin{array}{r} {}^{2}\,{}^{9}\,{}^{11} \\ \not{3}\not{0}\not{1} \\ -\,1\,5\,2 \\ \hline \end{array}$$

Subtract the ones.
Subtract the tens.
Subtract the hundreds.

$$\begin{array}{r} {}^{2}\,{}^{9}\,{}^{11} \\ \not{3}\not{0}\not{1} \\ -\,1\,5\,2 \\ \hline 1\,4\,9 \end{array}$$

The difference between 301 and 152 is 149.

Regroup.

1. 403 = 40 tens 3 ones = 39 tens _____ ones

2. 105 = 10 tens 5 ones = 9 tens _____ ones

3. 508 = 50 tens 8 ones = 49 tens _____ ones

Subtract. Follow the path of your answers through the maze in order from start to finish.

4. $\begin{array}{r} 308 \\ -\,149 \\ \hline \end{array}$ **5.** $\begin{array}{r} 503 \\ -\,236 \\ \hline \end{array}$ **6.** $\begin{array}{r} 705 \\ -\,387 \\ \hline \end{array}$ **7.** $\begin{array}{r} 801 \\ -\,653 \\ \hline \end{array}$

8. $\begin{array}{r} 404 \\ -\,175 \\ \hline \end{array}$ **9.** $\begin{array}{r} 300 \\ -\,142 \\ \hline \end{array}$ **10.** $\begin{array}{r} 201 \\ -\,112 \\ \hline \end{array}$ **11.** $\begin{array}{r} 603 \\ -\,498 \\ \hline \end{array}$

12. $\begin{array}{r} 508 \\ -\,389 \\ \hline \end{array}$ **13.** $\begin{array}{r} 604 \\ -\,455 \\ \hline \end{array}$ **14.** $\begin{array}{r} 901 \\ -\,683 \\ \hline \end{array}$ **15.** $\begin{array}{r} 707 \\ -\,248 \\ \hline \end{array}$

START →	159	267	318	317
	219	229	148	138
	147	158	89	105
FINISH ←	459	218	149	119

13 159 119 229

Subtracting Amounts of Money

Diana had $7.00. She spent $4.25 on a gift.
How much does she have left?

Subtract $4.25 from $7.00.

$$\begin{array}{r} {\scriptstyle 6\ \ 9\ 10} \\ \$\not{7}.\not{0}\not{0} \\ -\ 4.25 \\ \hline 2.75 \end{array}$$

Diana has $2.75 left.

Subtract.

1. $3.58 − 1.89

2. $5.45 − 3.68

3. $2.45 − 1.56

4. $5.15 − 2.75

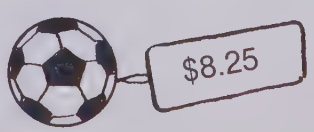
5. $4.25 − 1.79

6. $6.28 − 3.59

7. $7.82 − 3.95

8. $9.43 − 6.55

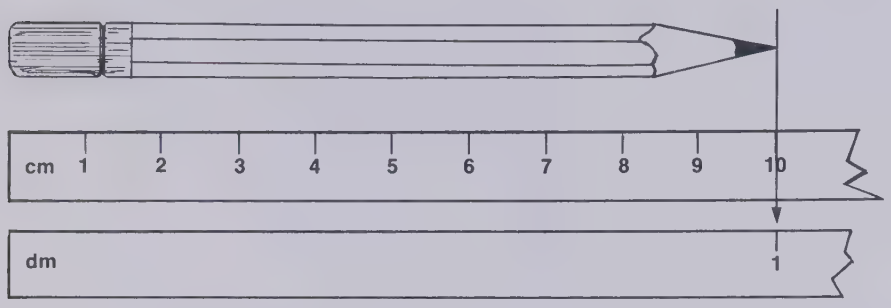
Complete the chart.
How much change does each person receive?

		How much change?
 Yogin has $5.00.	He buys 	$5.00 − 1.15
 Maria has $10.00.	She buys 	
 Michael has $2.00.	He buys 	

$2.46 $1.69

Metres, Decimetres, and Centimetres

The pencil is 10 cm long.
The pencil is 1 dm long.



10 cm = 1 dm
10 dm = 1 m
100 cm = 1 m

Complete the chart.

	cm	dm	m
1.	200		
2.		60	
3.			5
4.	400		
5.		10	

Complete.

6. 26 dm = _____ cm

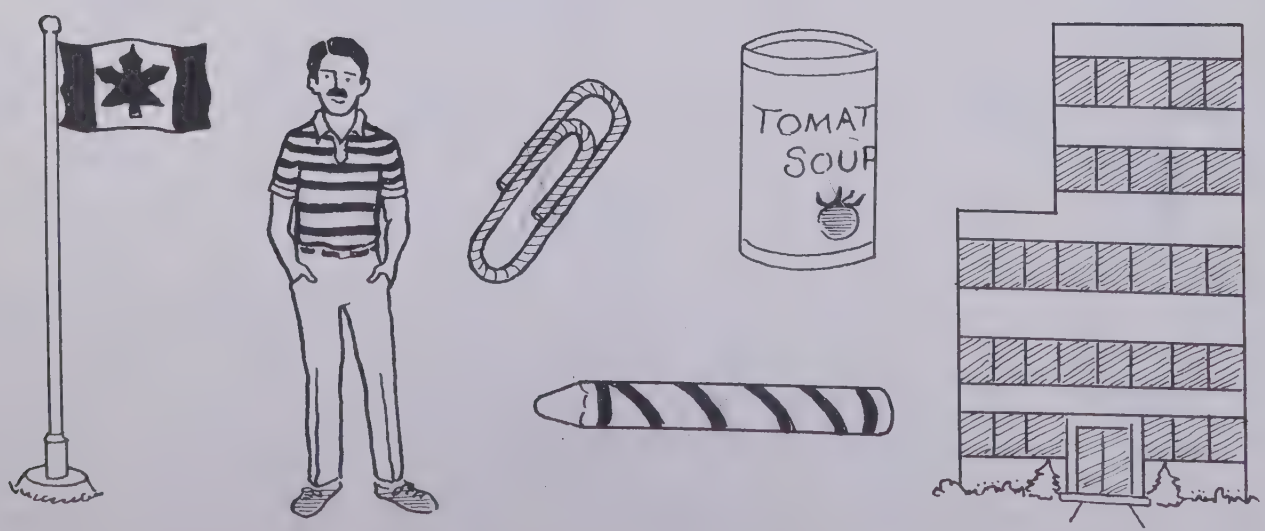
7. 42 dm = _____ dm _____ cm

8. 1 m 5 cm = _____ cm

9. 1 m 6 dm = _____ dm

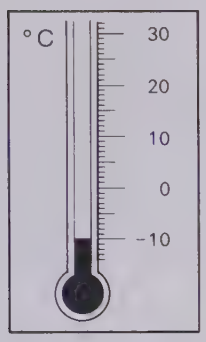
10. 3 dm 5 cm = _____ cm

Put an X on the objects that you would measure in centimetres.
Put an O on the objects that you would measure in metres.

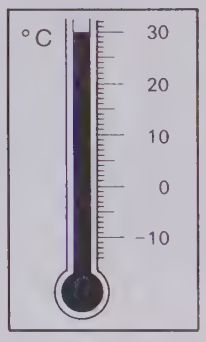


20 dm 2 m 260

Measuring Temperature in Degrees Celsius

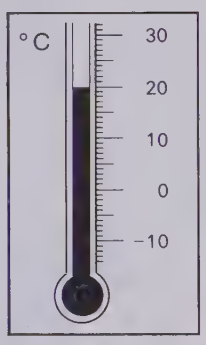


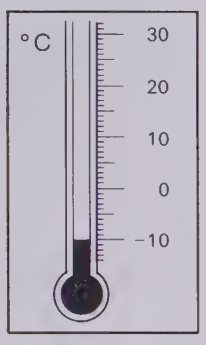
10° C below zero

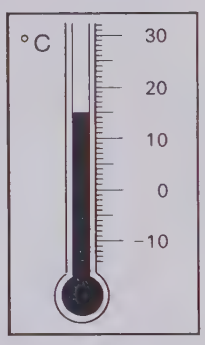


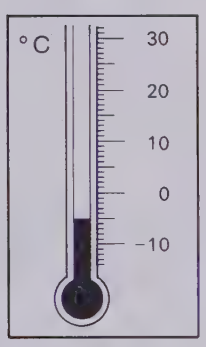
30° C above zero

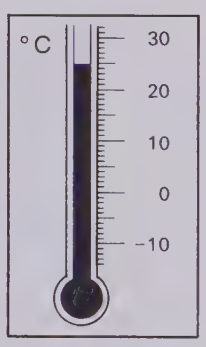
What is the temperature?

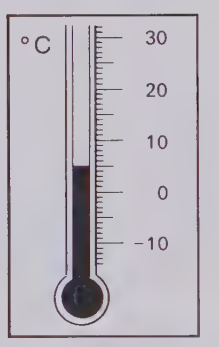
1. 

2. 

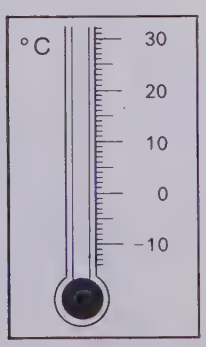
3. 

4. 

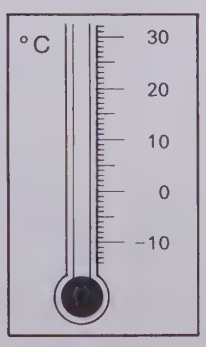
5. 

6. 

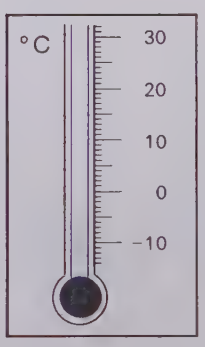
Show each temperature on the thermometer.

7. 

30° C

8. 

0° C

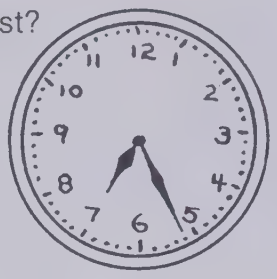
9. 

−5° C

20° C −5° C

Reading a Clock to the Minute

What time does John eat breakfast?

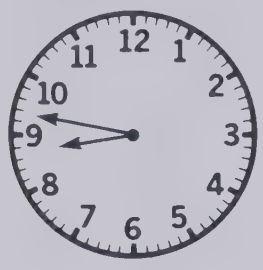


This clock shows 7:26.

The short hand is the hour hand.
The long hand is the minute hand.

John eats breakfast at 7:26.

What time is it?

1. 

_____

2. 

_____

3. 

_____

4. 

_____

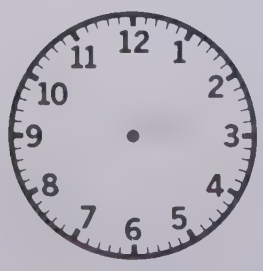
5. 

_____

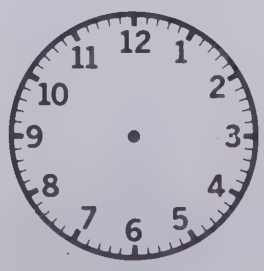
6. 

_____

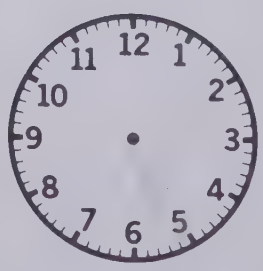
Show the time on each clock.

7. 

3:13

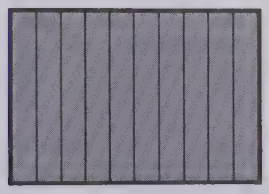
8. 

11:27

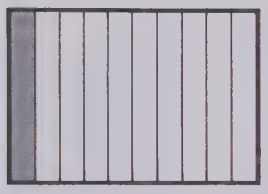
9. 

7:16

Using Decimals to Show Tenths



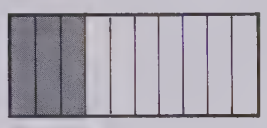
This shows 1 whole.



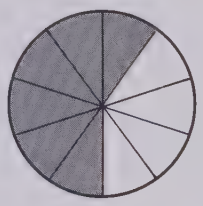
This shows $\frac{1}{10}$ of a whole.

We can write this as 0.1.

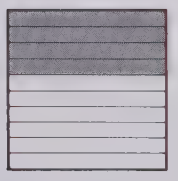
There are 10 equal parts in each shape.
Write a decimal to show how much is shaded.

1. 

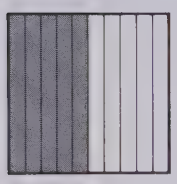
_____

2. 

_____

3. 

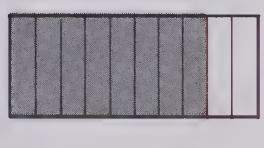
_____

4. 

_____

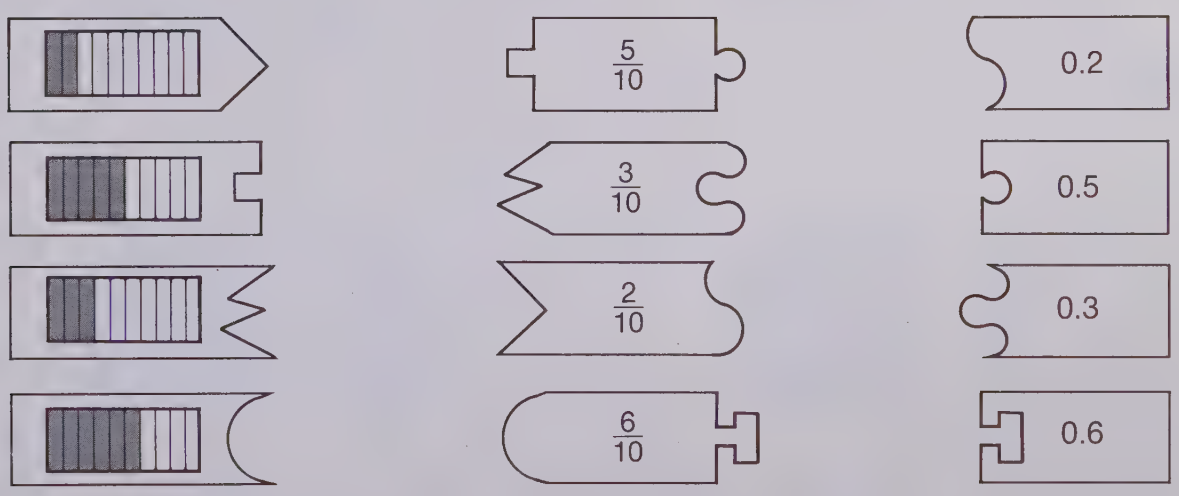
5. 

_____

6. 

_____

Make decimal cards. Cut out the puzzle pieces. Put the cards together matching each picture with the correct fraction and decimal.

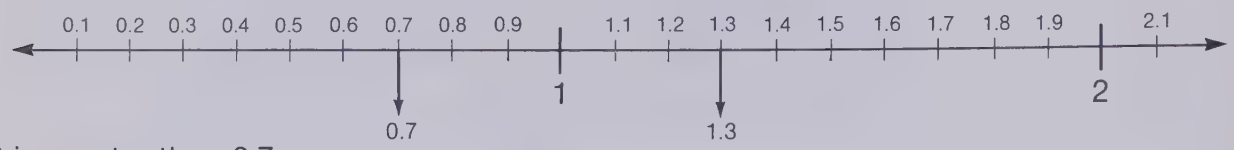


0.5 0.3

Comparing and Ordering Decimals

Which is greater, 0.7 or 1.3?

Compare the decimals on the number line.



1.3 is greater than 0.7.

Circle the decimal that is greater.

1. 0.3 or 0.5 **2.** 2.1 or 1.7 **3.** 0.5 or 1.1

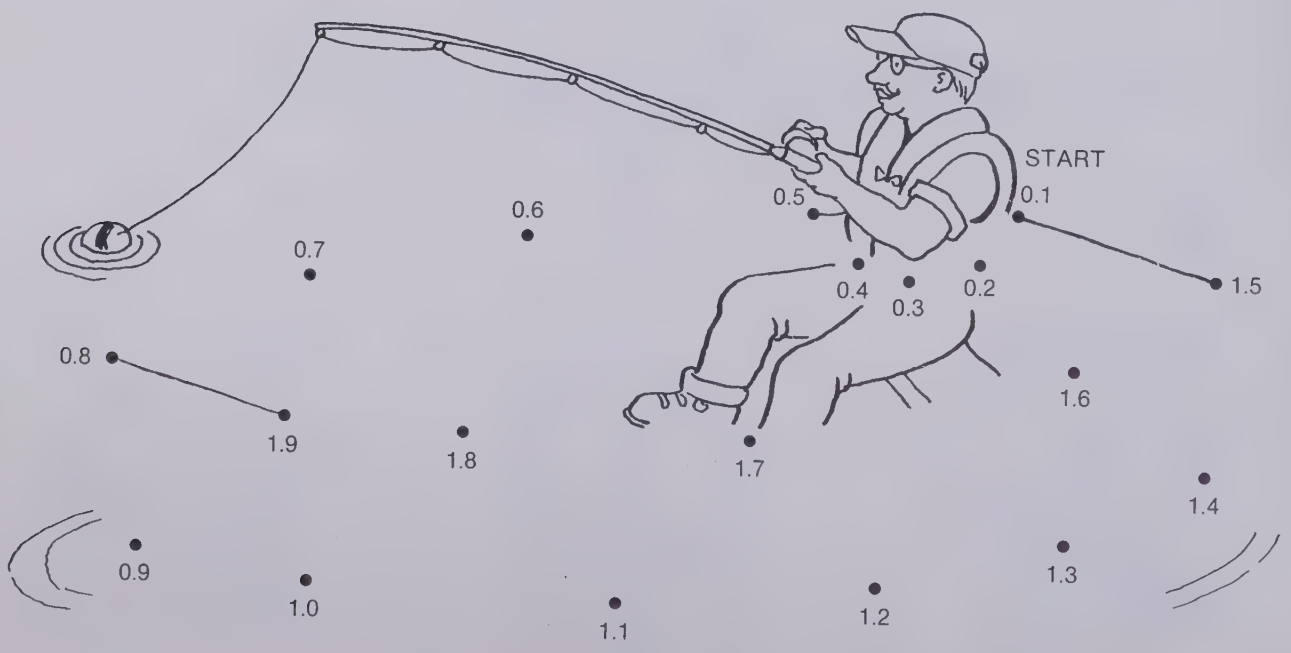
4. 1.3 or 0.7 **5.** 1.5 or 1.6 **6.** 0.9 or 1.0

Circle the decimal that is less.

7. 0.5 or 1.5 **8.** 3.3 or 3.5 **9.** 1.2 or 0.9

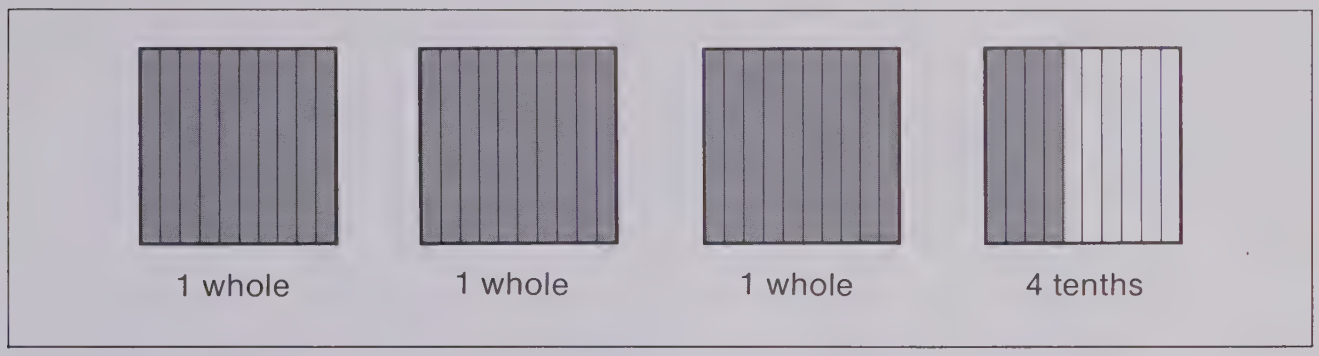
10. 0.4 or 4.2 **11.** 2.5 or 1.8 **12.** 3.6 or 3.5

Connect the points in order from the least decimal to the greatest decimal.



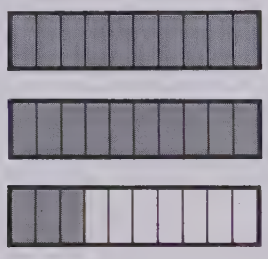
1.3 0.5 0.4 0.5

Decimals and Place Value

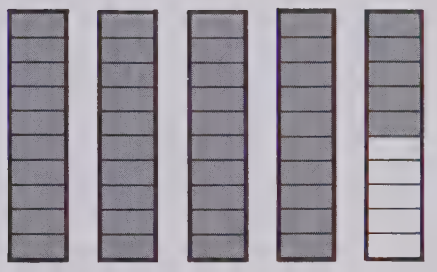


The picture shows 34 tenths, or 3 wholes and 4 tenths.
We write 3.4.

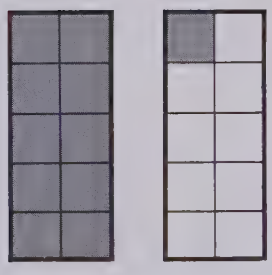
Write a decimal to tell how much is shaded.

1. 

_____

2. 

_____

3. 

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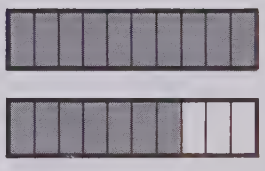
4. 

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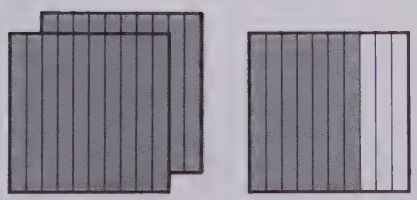
5. 

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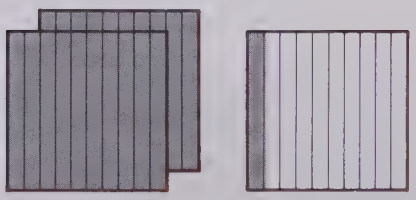
6. 

_____

1.1 2.7 2.3

Adding Decimals

Add 1.7 and 3.6.

Line up the decimal points.

$$\begin{array}{r} 1.7 \\ +3.6 \\ \hline \end{array}$$

Add the tenths. Regroup 13 tenths as 1 one 3 tenths.

$$\begin{array}{r} {\scriptstyle 1} \\ 1.7 \\ +3.6 \\ \hline 3 \end{array}$$

Add the ones and place the decimal point.

$$\begin{array}{r} {\scriptstyle 1} \\ 1.7 \\ +3.6 \\ \hline 5.3 \end{array}$$

The sum of 1.7 and 3.6 is 5.3.

Add.

1. $\begin{array}{r} 2.3 \\ +4.9 \\ \hline \end{array}$ **2.** $\begin{array}{r} 1.5 \\ +3.6 \\ \hline \end{array}$ **3.** $\begin{array}{r} 4.5 \\ +2.7 \\ \hline \end{array}$ **4.** $\begin{array}{r} 1.6 \\ +6.6 \\ \hline \end{array}$

5. $\begin{array}{r} 3.4 \\ +2.8 \\ \hline \end{array}$ **6.** $\begin{array}{r} 4.8 \\ +1.9 \\ \hline \end{array}$ **7.** $\begin{array}{r} 5.4 \\ +3.8 \\ \hline \end{array}$ **8.** $\begin{array}{r} 2.7 \\ +5.4 \\ \hline \end{array}$

9. $\begin{array}{r} 2.4 \\ +2.8 \\ \hline \end{array}$ **10.** $\begin{array}{r} 3.3 \\ +4.8 \\ \hline \end{array}$ **11.** $\begin{array}{r} 6.3 \\ +1.9 \\ \hline \end{array}$ **12.** $\begin{array}{r} 5.5 \\ +2.6 \\ \hline \end{array}$

Add to complete the chart.

13.

+ → / ↓			
	1.7	1.8	
	2.5	2.3	

14.

+ → / ↓			
	2.6	1.9	
	2.5	2.7	

15.

+ → / ↓			
	3.3	2.8	
	1.8	1.3	

16.

+ → / ↓			
	3.5	1.6	
	2.6	1.5	

6.2 3.5, 4.8; 4.2, 4.1; 8.3 5.2 7.2

Multiplication, 2, 3, and 4 as Factors

Start at 0 and make 5 jumps of 2. Where do you land?

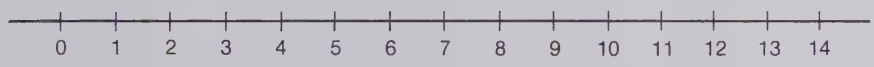
5 jumps of 2 end at 10.

We can write $2 + 2 + 2 + 2 + 2 = 10$

or $5 \times 2 = 10$

5 and 2 are factors; 10 is the product.

Use the number line to tell where you land.



1. 3 jumps of 4 _____

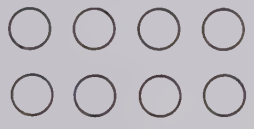
2. 2 jumps of 3 _____

3. 3 jumps of 2 _____

4. 2 jumps of 5 _____

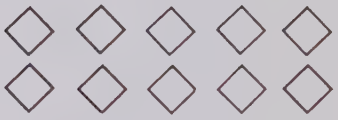
Write a multiplication sentence for each picture.

5.



6.

7.



_____ _____ _____

Multiply.

8. $5 \times 2 =$ _____

9. $3 \times 3 =$ _____

10. $2 \times 4 =$ _____

11. $5 \times 3 =$ _____

12. $6 \times 2 =$ _____

13. $4 \times 3 =$ _____

14. $2 \times 5 =$ _____

15. $2 \times 3 =$ _____

16. $3 \times 4 =$ _____

10 12 $4 \times 2 = 8$

Multiplication, 5, 0, and 1 as Factors

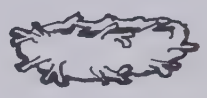
How many birds in all?

2 groups of 5.
$2 \times 5 = 10$ birds.

There are 10 birds.

1 group of 5.
$1 \times 5 = 5$ birds.

There are 5 birds.



No groups of 5.
$0 \times 5 = 0$

There are 0 birds.

Complete the chart.

		How many?			Multiplication Sentence
		Rows	Dots in a Row	Dots in all	
1.					
2.					
3.					
4.					
5.					

Multiply.

6. $2 \times 5 =$ _____ **7.** $5 \times 1 =$ _____ **8.** $5 \times 0 =$ _____

9. $7 \times 0 =$ _____ **10.** $9 \times 1 =$ _____ **11.** $0 \times 4 =$ _____

12. $3 \times 5 =$ _____ **13.** $1 \times 0 =$ _____ **14.** $0 \times 3 =$ _____

Multiplication Practice

How many ice cream scoops?

3 scoops on 4 cones

$3 \times 4 = 12$

There are 12 scoops in all.

Complete the multiplication charts.

	X	1	2	3	4	5
1.	0					
2.	1					
3.	2					
4.	3					
5.	4					

	X	1	2	3	4	5
6.	5					
7.	6					
8.	7					
9.	8					
10.	9					

Here is a code.

0	4	6	7	9	10
B	M	U	E	L	G

What does a bee like to chew most? Multiply to find the message.

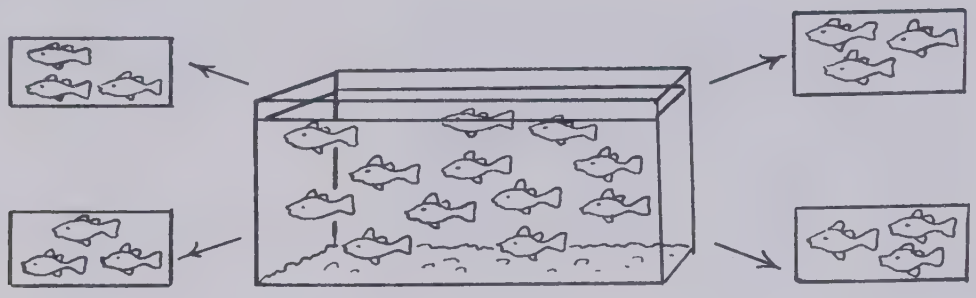
5×0	2×3	2×2	9×0	3×3	7×1

5×2	6×1	4×1

$0 = 1 \times 0$

Finding the Number in Each Group

12 fish to be shared equally in 4 tanks.
How many fish in each tank?

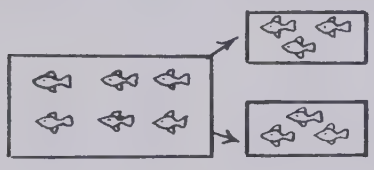


There are 3 fish in each tank.

We can write the division sentence $12 \div 4 = 3$.

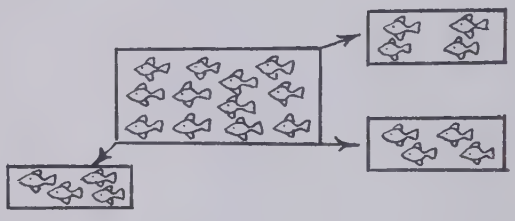
Complete the division sentence for each picture.

1.



$6 \div 2 =$ ____

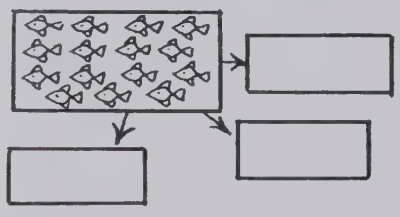
2.



$12 \div 3 =$ ____

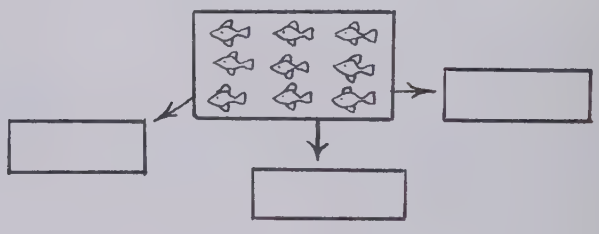
Complete each picture and write a division sentence.

3.



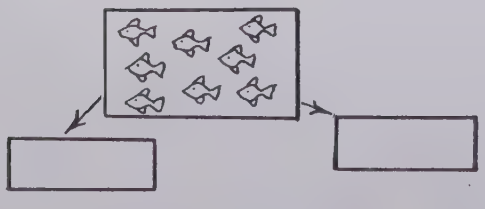
_____

4.



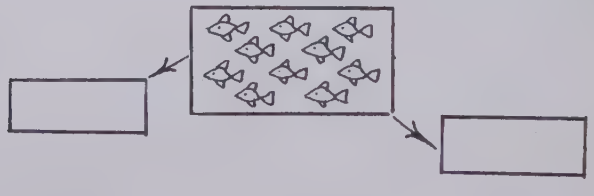
_____

5.



_____

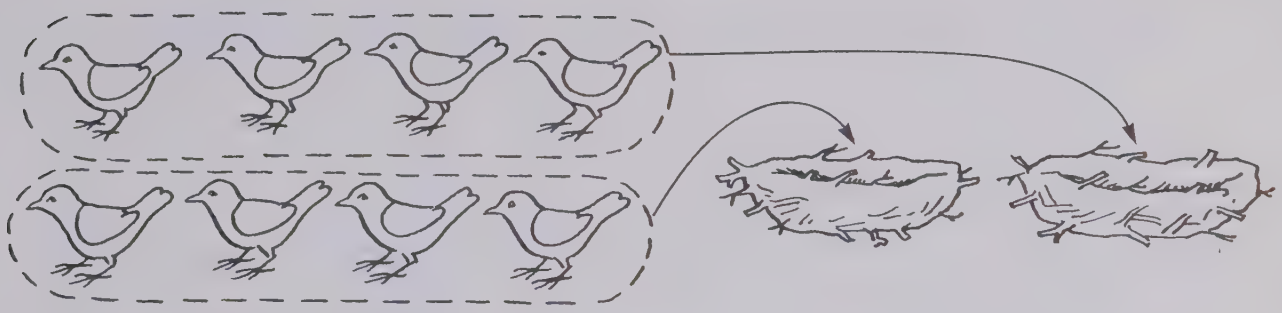
6.



_____

$15 \div 3 = 5$ 3

Dividing by 2 and 3



8 birds

2 nests

$8 \div 2 = 4$

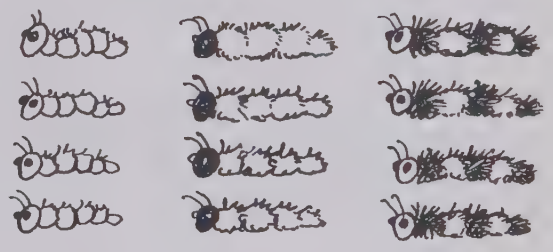
There are 4 birds for each nest.

Ring groups of 2. Complete each division sentence.

1.

$10 \div 2 =$ _____

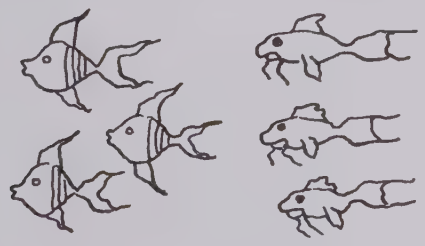
2.



$12 \div 2 =$ _____

Ring groups of 3. Complete each division sentence.

3.



$6 \div 3 =$ _____

4.

$12 \div 3 =$ _____

Divide.

5. $14 \div 2 =$ _____

6. $18 \div 2 =$ _____

7. $6 \div 2 =$ _____

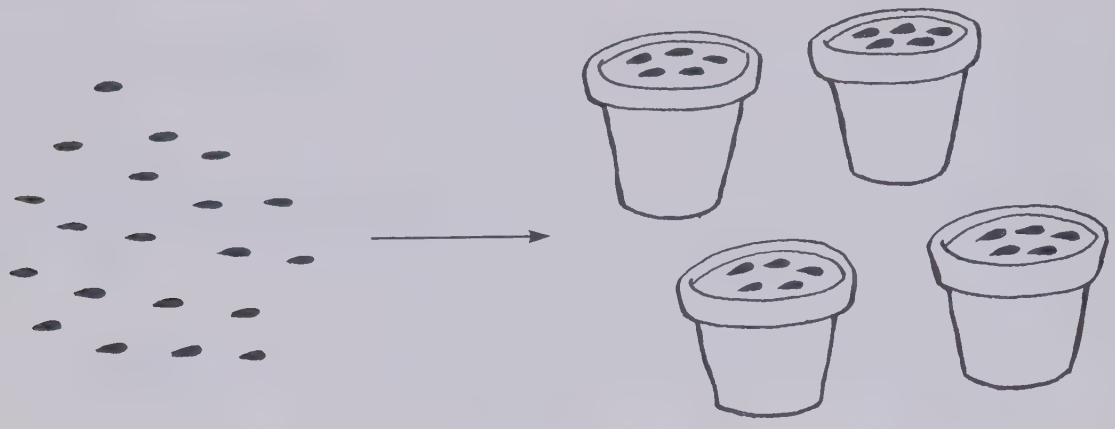
8. $15 \div 3 =$ _____

9. $9 \div 3 =$ _____

10. $18 \div 3 =$ _____

5 7 2 5

Dividing by 4 and 5



20 seeds for 4 flowerpots.
We can write the division sentence $20 \div 4 = 5$.

There are 5 seeds in each pot.

Complete each division sentence.

1. Ring groups of 4.

$12 \div 4 =$ ____

2. Ring groups of 5.

$15 \div 5 =$ ____

Divide.

3. $8 \div 4 =$ ____ **4.** $16 \div 4 =$ ____ **5.** $28 \div 4 =$ ____

6. $24 \div 4 =$ ____ **7.** $36 \div 4 =$ ____ **8.** $32 \div 4 =$ ____

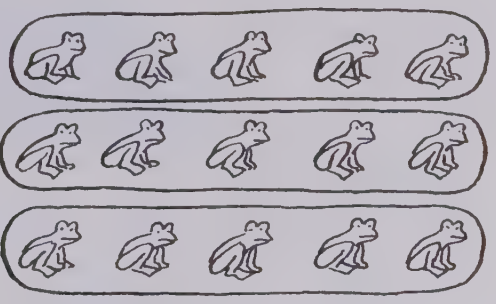
9. $20 \div 5 =$ ____ **10.** $35 \div 5 =$ ____ **11.** $25 \div 5 =$ ____

12. $45 \div 5 =$ ____ **13.** $10 \div 5 =$ ____ **14.** $40 \div 5 =$ ____

4 3 6 9 2

Relating Multiplication and Division

We can write a multiplication sentence and a division sentence for this picture.



3 groups of 5.
15 in all.

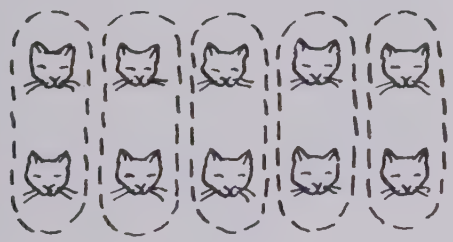
$3 \times 5 = 15$

15 divided into 3 groups.
5 in each group.

$15 \div 3 = 5$

Use the pictures to complete the multiplication and division sentences.

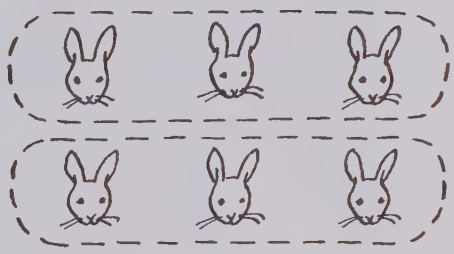
1.



$2 \times 5 =$ ____

$10 \div 5 =$ ____

2.



$3 \times 2 =$ ____

$6 \div 2 =$ ____

Complete each family of facts.

3.

$6 \times 4 =$ ____

$4 \times$ ____ $= 24$

$24 \div 6 =$ ____

$24 \div 4 =$ ____

4.

$5 \times 4 =$ ____

$4 \times$ ____ $= 20$

$20 \div 5 =$ ____

$20 \div 4 =$ ____

5.

$8 \times 6 =$ ____

$6 \times$ ____ $= 48$

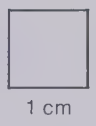
$48 \div 6 =$ ____

$48 \div 8 =$ ____

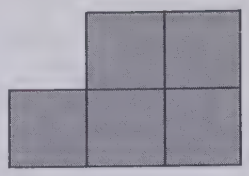
24, 6, 4, 6

10, 2

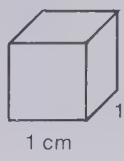
Area and Volume

This is a square centimetre. 

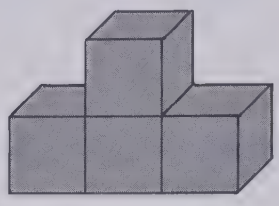
Count the number of square centimetres in a figure to find the area.



The area of this figure is 5 cm^2.

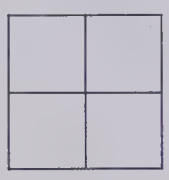
This is a cubic centimetre. 

Count the number of cubic centimetres in a figure to find the volume.



The volume of this figure is 4 cm^3.

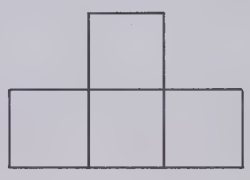
Find the area of each region in square centimetres.

1. 

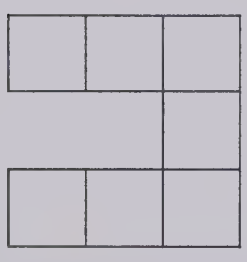
_____ cm^2

2. 

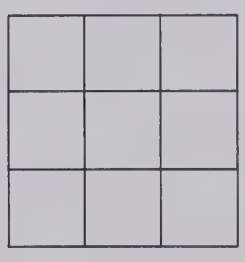
_____ cm^2

3. 

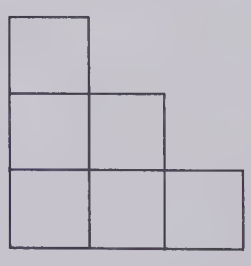
_____ cm^2

4. 

_____ cm^2

5. 

_____ cm^2

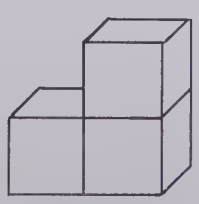
6. 

_____ cm^2

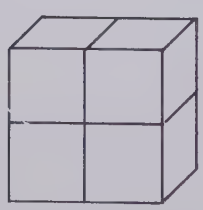
Find the volume in cubic centimetres.

7. 

_____ cm^3

8. 

_____ cm^3

9. 

_____ cm^3

7 cm^2 3 cm^3 4 cm^2

Pictographs

A graph is a way of showing information.
A pictograph uses pictures to show numbers.

This pictograph shows the number of houses on 5 streets in Jean's neighborhood.

Number of Houses in Jean's Neighborhood

New Street	
Maple Road	
Castle Lane	
Elm Road	
Mulberry Court	
means 5 houses.	

The graph tells us that each means 5 houses.
To find the number of houses on New Street, we multiply the number of by 5.
There are $4 \times 5 = 20$ houses on New Street.

Tell how many houses on each street.

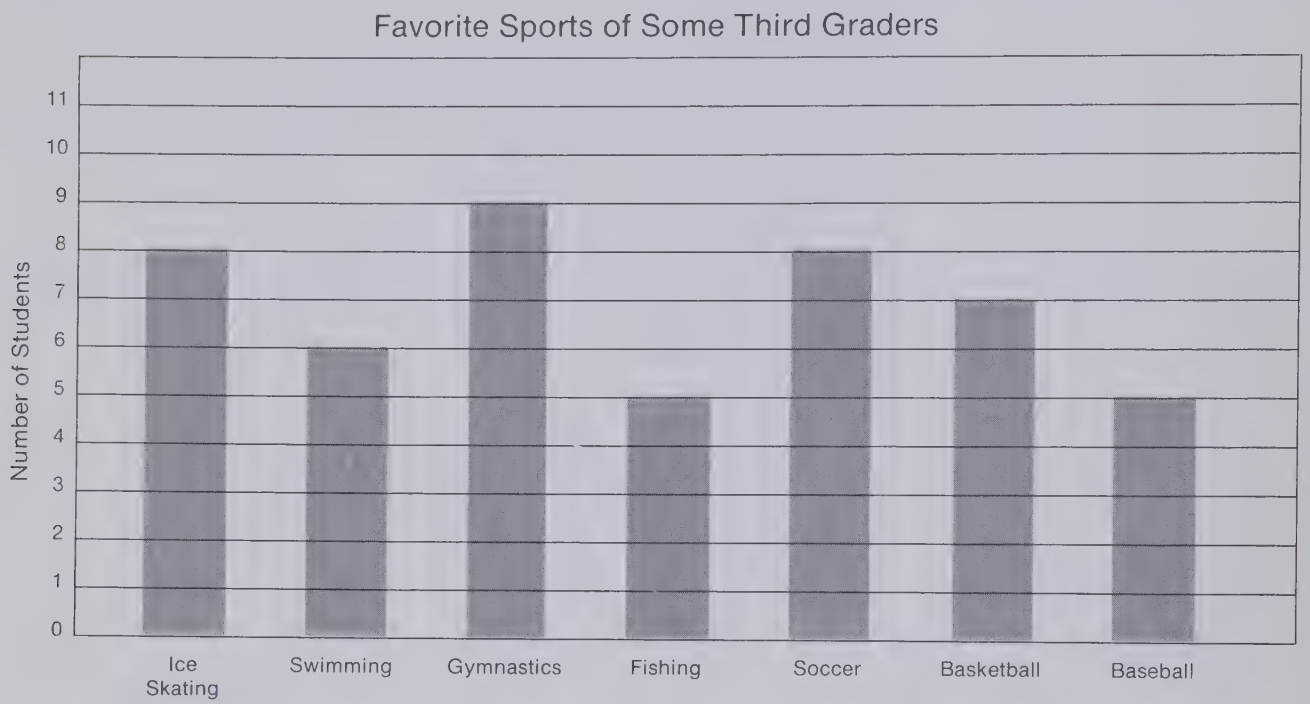
1. Maple Road _____
2. Castle Lane _____
3. Elm Road _____
4. Mulberry Court _____
5. Which two streets have the same number of houses? _____
6. Which street has the most houses? _____
7. Which street has the least number of houses? _____
8. How many houses in all on Elm Road and Castle Lane? _____

$6 \times 5 = 30$ Elm Road

Bar Graphs

Wendy asked some students to name their favorite sport.
She made a bar graph to show the results.

The graph shows that 8 students named ice skating as their favorite sport.



How many students chose each sport?

1. Swimming _____

2. Gymnastics _____

3. Fishing _____

4. Soccer _____

5. Basketball _____

6. Baseball _____

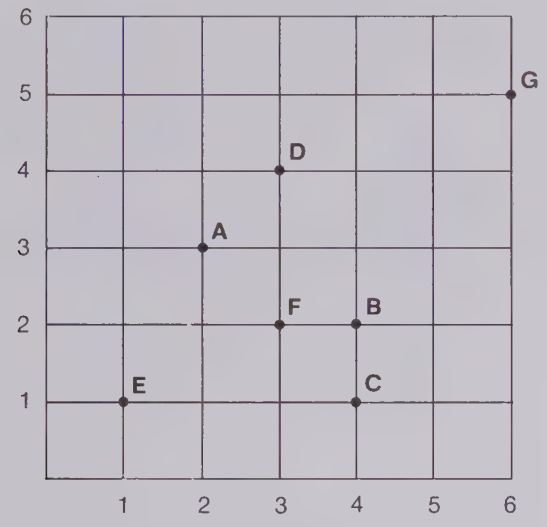
7. Which sport did the greatest number of students prefer? _____

8. Which sport was named by the least number of students? _____

9. How many more students preferred gymnastics to baseball? _____

10. How many students in all chose ice skating, gymnastics, or soccer as their favorite sport? _____

Positions on a Grid



A number pair is used to locate points on a grid.
To name point **A** we count over 2, then up to 3.

We write this as (2,3).

Write the number pair that matches each point on the grid above.

1. point B _____

2. point C _____

3. point D _____

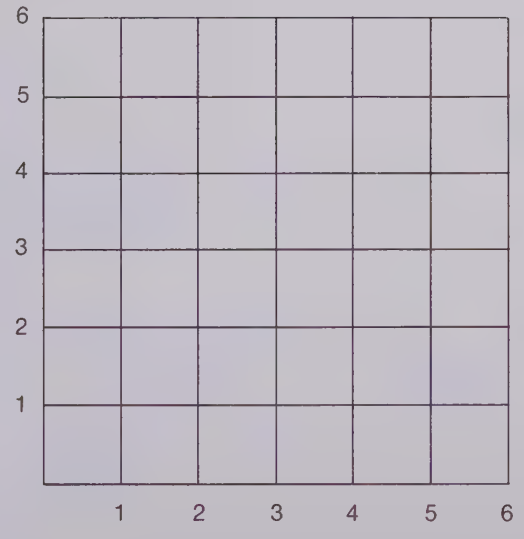
4. point E _____

5. point F _____

6. point G _____

Place each point on the grid.

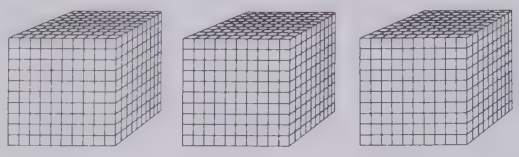
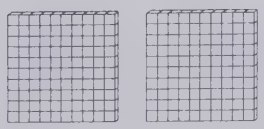
7. (3,5)
8. (1,3)
9. (4,2)
10. (5,1)
11. (2,1)
12. (4,1)



(4,2)

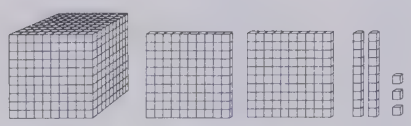
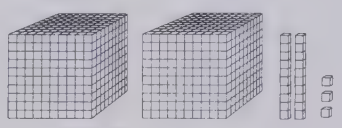
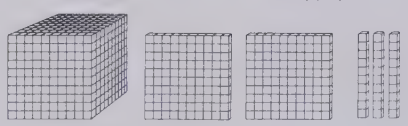
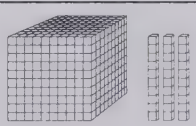
Numbers to 9999

We can show the number three thousand two hundred fourteen this way.

thousands	hundreds	tens	ones
			
3 thousands	2 hundreds	1 ten	4 ones

3000 + 200 + 10 + 4 = 3214

Complete the chart.

		th	h	t	o	Numeral
1.						
2.						
3.						
4.						

Find the mystery numeral.

2416	1435	9871	6418	3243	8971	2659
8571	6853	1485	6535	2553	6013	5472

Shade all the numerals with a:
- 2 in the thousands place
- 4 in the hundreds place
- 7 in the tens place
- 3 in the ones place

The mystery numeral is _____.

1, 2, 3, 1223, one thousand two hundred twenty-three

Expanded Form

Write each number in expanded form.

1. 435 _____

2. 652 _____

3. 2564 _____

4. 4159 _____

5. 6524 _____

6. 9135 _____

Write each number in standard form.

7. 300 + 40 + 5 = _____

8. 200 + 50 + 8 = _____

9. 600 + 60 + 1 = _____

10. 1000 + 200 + 30 + 2 = _____

11. 3000 + 400 + 60 + 8 = _____

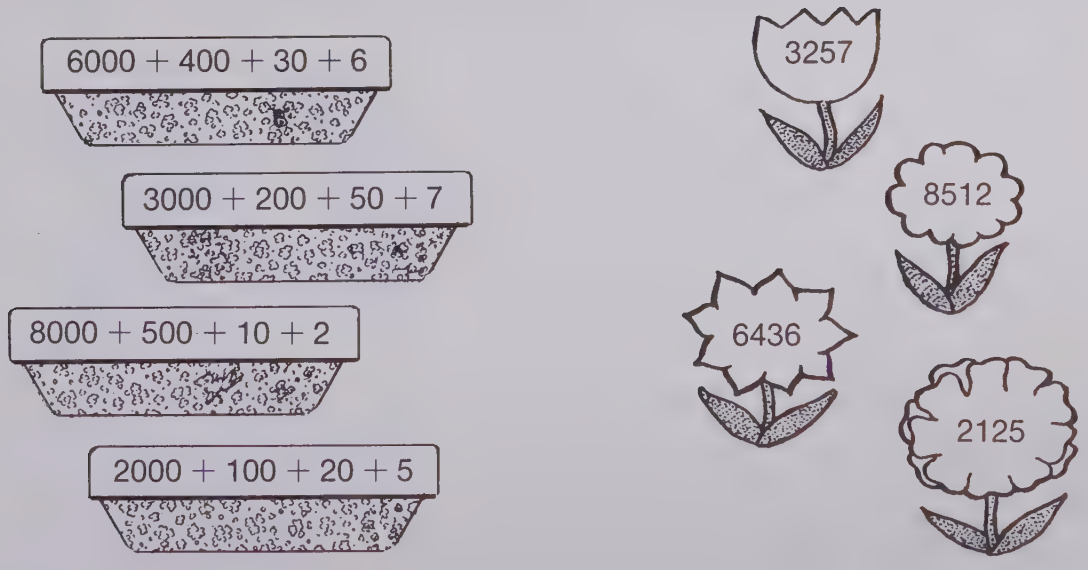
12. 5000 + 400 + 80 + 9 = _____

13. 7000 + 700 + 40 + 1 = _____

14. 2000 + 700 + 20 + 4 = _____

15. 6000 + 100 + 90 + 2 = _____

Draw a line to match each pot with a flower.



400 + 30 + 5

345

Comparing and Ordering

Compare 3247 and 3258. Compare the digits. Start at the left.

thousands	hundreds	tens	ones
3	2	5	8
3	2	4	7

same

same

5 tens is greater than 4 tens,
so 3258 is greater than 3247.

We write: $3258 > 3247$.

Circle the greater number.

1. 4216 or 3987

2. 2976 or 3015

3. 8615 or 8595

4. 6411 or 4785

5. 3216 or 3452

6. 4115 or 4216

Write $<$ or $>$ to make a true statement.

7. 2142 ____ 2412

8. 1356 ____ 1251

9. 8511 ____ 8151

10. 485 ____ 479

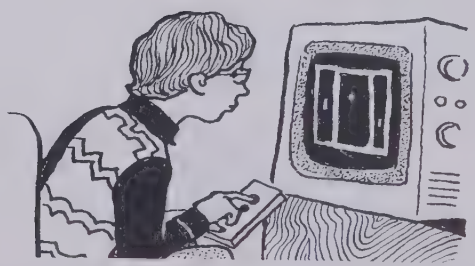
11. 2111 ____ 2215

12. 3243 ____ 3143

13. 5851 ____ 5916

14. 6321 ____ 6215

15. 4816 ____ 4935



Paul played some electronic games.
Put his scores in order from least to greatest.

16. 1325, 465, 982, 1005 _____

17. 846, 579, 818, 412 _____

18. 3516, 1215, 2145, 2015 _____

> 4216

Fractions for Parts of Sets

There are 5 children. 2 of the children are smiling.

We can say $\frac{2}{5}$ of the children are smiling.

Write the fraction that shows how many of each set are shaded.

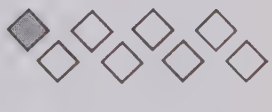
1. 

2. 

3. 

4. 

5. 

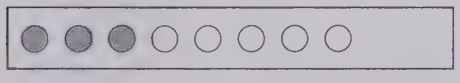
6. 

Answer each question.

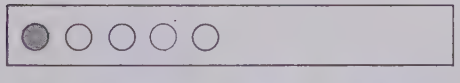
7. Amanda had 5 cookies. She ate 2 of them. What fraction tells how many of the cookies she ate?

8. Joe had 7 doughnuts. He ate 3 of them. What fraction tells how many of the doughnuts he ate?

Draw a line to match.

9. 

10. 

11. 

12. 

13. 

$\frac{6}{7}$ $\frac{9}{10}$ $\frac{3}{8}$ $\frac{1}{5}$ $\frac{5}{6}$

$\frac{5}{2}$ $\frac{4}{9}$

Addition Practice

Add 454 and 278.

Add the ones.	Add the tens.	Add the hundreds.
1 454 +278 2	11 454 +278 32	1 454 +278 732
Regroup 12 ones as 1 ten 2 ones.	Regroup 13 tens as 1 hundred 3 tens.	

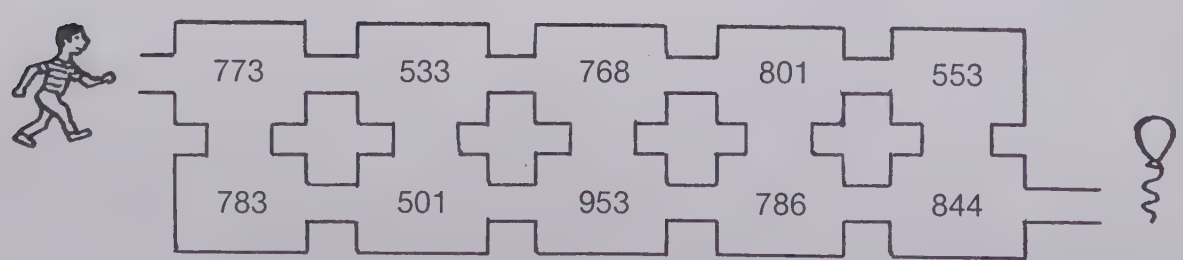
The sum of 454 and 278 is 732.

Add.

1. 245 +178	**2.** 515 +376	**3.** 472 +253	**4.** 658 +185
5. 225 + 98	**6.** 175 +548	**7.** 359 +358	**8.** 645 +287

Add. Follow the path of your answers in order to help the boy find his balloon.

9. 298 +475	**10.** 342 +191	**11.** 425 + 76	**12.** 658 +295
13. 568 +218	**14.** 148 +653	**15.** 435 +118	**16.** 735 +109



Adding Amounts of Money

Jean-Paul bought a soccer ball for $15.35 and shin guards for $8.98. How much did he spend in all?

Add the cents. Regroup as needed.

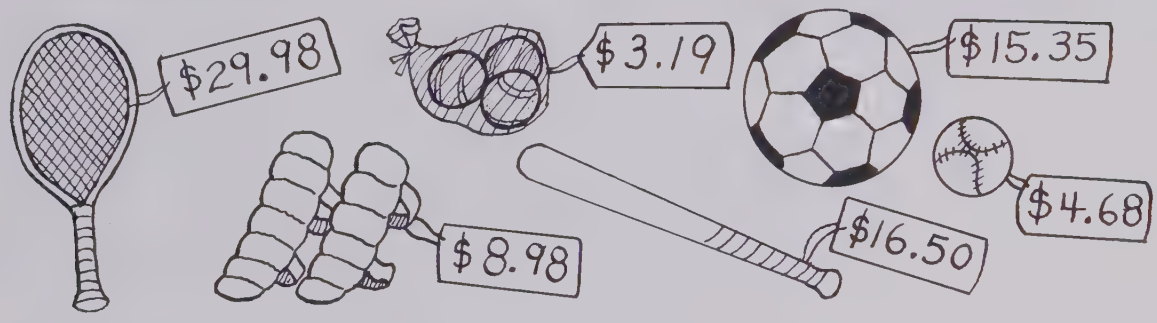
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ \$15.\mathbf{35} \\ +\ \ 8.\mathbf{98} \\ \hline .\mathbf{33} \end{array}$$

Add the dollars.

$$\begin{array}{r} {\scriptstyle 1} \\ \$\mathbf{15}.35 \\ +\ \ \mathbf{8}.98 \\ \hline \$\mathbf{24}.33 \end{array}$$

Jean-Paul spent $24.33 in all.

Laurie works in Susan's Sport Shop. Help her add the sales slips.



1.

Tennis racket	$29.98
Tennis balls	
Total	

2.

Baseball bat	
Baseball	
Total	

3.

Soccer ball	
Baseball	
Total	

4.

Tennis racket	
Soccer ball	
Total	

5.

Shin guards	
Tennis balls	
Total	

6.

Tennis balls	
Baseball	
Total	

total = $33.17

Adding Three Numbers

Centre City Parking Lot can hold 264 cars. East End Parking Lot can hold 277 cars. Mid Town Lot can hold 185 cars. How many cars can the 3 parking lots hold in all?

Add 264, 277, and 185.

Add the ones and regroup.

$$\begin{array}{r} {\scriptstyle 1} \\ 264 \\ 277 \\ +185 \\ \hline 6 \end{array}$$

Add the tens and regroup.

$$\begin{array}{r} {\scriptstyle 21} \\ 264 \\ 277 \\ +185 \\ \hline 26 \end{array}$$

Add the hundreds.

$$\begin{array}{r} {\scriptstyle 21} \\ 264 \\ 277 \\ +185 \\ \hline 726 \end{array}$$

The 3 parking lots can hold 726 cars in all.

Here is a code.

545	648	686	802	851	492	806	719	761	912	736	640
T	R	B	U	L	C	I	A	E	Y	P	H

What building has the most storeys?
Add to find the answer to the riddle.

265 132 +148	175 325 +140	352 168 +241

315 245 +176	225 165 +412	119 352 +215	155 231 +465	415 213 +178	245 135 +112

215 136 +500	348 225 +233	143 128 +415	245 145 +258	219 325 +175	155 125 +368	352 215 +345

Subtraction Practice

It is often necessary to regroup in order to subtract.

Subtract 153 from 324.

Subtract the ones.

$$\begin{array}{r} 324 \\ -153 \\ \hline 1 \end{array}$$

Subtract the tens.
We cannot subtract 5 tens from 2 tens.

$$\begin{array}{r} {\scriptstyle 2\ 12} \\ 3\not{2}4 \\ -153 \\ \hline 71 \end{array}$$

Regroup 3 hundreds 2 tens as 2 hundreds 12 tens.

Subtract the hundreds.

$$\begin{array}{r} {\scriptstyle 2\ 12} \\ 3\not{2}4 \\ -153 \\ \hline 171 \end{array}$$

The difference between 324 and 153 is 171.

Regroup to show more ones.

1. 4 hundreds 3 tens 2 ones = 4 hundreds 2 tens _____ ones.

2. 3 hundreds 4 tens 5 ones = 3 hundreds 3 tens _____ ones.

Regroup to show more tens.

3. 3 hundreds 4 tens 5 ones = 2 hundreds _____ tens 5 ones.

4. 5 hundreds 3 tens 2 ones = 4 hundreds _____ tens 2 ones.

Play subtraction tick-tack-toe.
Three of the same answers in a row wins.

$\begin{array}{r} 315 \\ -178 \\ \hline \end{array}$	$\begin{array}{r} 453 \\ -285 \\ \hline \end{array}$	$\begin{array}{r} 245 \\ -168 \\ \hline \end{array}$
$\begin{array}{r} 255 \\ -118 \\ \hline \end{array}$	$\begin{array}{r} 632 \\ -358 \\ \hline \end{array}$	$\begin{array}{r} 564 \\ -298 \\ \hline \end{array}$
$\begin{array}{r} 212 \\ -\ 75 \\ \hline \end{array}$	$\begin{array}{r} 158 \\ -\ 79 \\ \hline \end{array}$	$\begin{array}{r} 331 \\ -143 \\ \hline \end{array}$

Subtraction Practice

Planet M has 712 craters. Planet Z has 431 craters. How many more craters does Planet M have than Planet Z?

Subtract 431 from 712.

Subtract the ones.	Regroup 7 hundreds 1 ten as 6 hundreds 11 tens. Subtract the tens.	Subtract the hundreds.
712 −431 1	6 11 ~~7~~ ~~1~~2 −431 81	6 11 ~~7~~ ~~1~~2 −431 281

Planet M has 281 more craters than Planet Z.

Subtract. Take a moon walk. Watch out for craters!

412 − 156

336 − 187

241 − 187

Meteorite shower! Move quickly to the next box.

525 − 278

Jump over craters! Skip to the next box.

785 − 399

615 − 428

451 − 285

323 − 175

222 − 85

Subtracting Amounts of Money

Lisa bought a leash for her dog for $12.87.
Michelle bought a leash for $8.92.
How much more did Lisa spend than Michelle?

Subtract the cents.

$$\begin{array}{r} {\scriptstyle 1\ \ 18} \\ \$12.\not{8}\not{7} \\ -\ \ 8.92 \\ \hline .95 \end{array}$$

Regroup 2 dollars 8 dimes as 1 dollar 18 dimes.

Subtract the dollars.

$$\begin{array}{r} {\scriptstyle 1\ \ 18} \\ \$12.\not{8}7 \\ -\ \ 8.92 \\ \hline 3.95 \end{array}$$

Lisa spent $3.95 more than Michelle.

Subtract.

1. $\begin{array}{r} \$15.65 \\ -\ \ 5.75 \\ \hline \end{array}$ **2.** $\begin{array}{r} \$11.58 \\ -\ \ 6.75 \\ \hline \end{array}$ **3.** $\begin{array}{r} \$12.41 \\ -\ \ 8.78 \\ \hline \end{array}$

4. $\begin{array}{r} \$13.42 \\ -\ \ 9.65 \\ \hline \end{array}$ **5.** $\begin{array}{r} \$12.56 \\ -\ \ 7.85 \\ \hline \end{array}$ **6.** $\begin{array}{r} \$17.84 \\ -\ \ 9.93 \\ \hline \end{array}$

Complete the chart.

	I have	I buy	I have left
7.	$12.40		$\begin{array}{r} \$12.40 \\ -\ \ 8.99 \\ \hline \end{array}$
8.	$15.40		
9.	$10.75		

$3.77 $9.90

Using Addition to Check Subtraction

Subtract and check.

Subtract.

$$\begin{array}{r} 534 \\ -285 \\ \hline 249 \end{array}$$

Add to check.

$$\begin{array}{r} 285 \\ +249 \\ \hline 534 \end{array}$$

These two numbers should match.

Subtract. Add to check.

1. $\begin{array}{r} 87 \\ -32 \\ \hline \end{array}$ ____ + ____

2. $\begin{array}{r} 79 \\ -43 \\ \hline \end{array}$ ____ + ____

3. $\begin{array}{r} 87 \\ -19 \\ \hline \end{array}$ ____ + ____

4. $\begin{array}{r} 27 \\ -15 \\ \hline \end{array}$ ____ + ____

5. $\begin{array}{r} 36 \\ -19 \\ \hline \end{array}$ ____ + ____

6. $\begin{array}{r} 42 \\ -26 \\ \hline \end{array}$ ____ + ____

7. $\begin{array}{r} 745 \\ -289 \\ \hline \end{array}$ ____ + ____

8. $\begin{array}{r} 364 \\ -185 \\ \hline \end{array}$ ____ + ____

9. $\begin{array}{r} 412 \\ -266 \\ \hline \end{array}$ ____ + ____

Subtract across and down. Find the magic difference in the corner box.

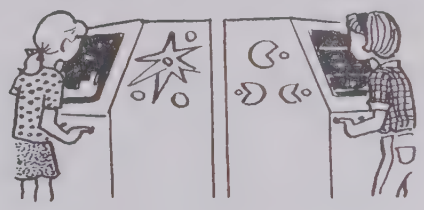
10. – →, ↓

243	151	
165	86	

11. – →, ↓

342	175	
254	88	

Regrouping with Zeros



Sara scored 1000 points on her electronic game. Samantha scored 832. How many more points did Sara score than Samantha?

Subtract 832 from 1000.

Regroup.

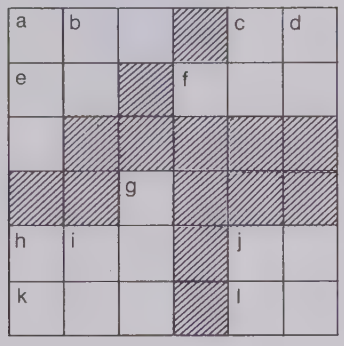
$$\begin{array}{r} {}^{9}\,{}^{9}\,{}^{10} \\ \not{1}\not{0}\not{0}\not{0} \\ -\ 832 \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} {}^{9}\,{}^{9}\,{}^{10} \\ \not{1}\not{0}\not{0}\not{0} \\ -\ 832 \\ \hline 168 \end{array}$$

Lisa scored 168 more points than Samantha.

Complete the cross-number puzzle.



Across

a. $\begin{array}{r} 200 \\ -\ 57 \\ \hline \end{array}$

c. $\begin{array}{r} 300 \\ -218 \\ \hline \end{array}$

e. $\begin{array}{r} 400 \\ -375 \\ \hline \end{array}$

f. $\begin{array}{r} 1000 \\ -\ 532 \\ \hline \end{array}$

h. $\begin{array}{r} 1000 \\ -\ 658 \\ \hline \end{array}$

j. $\begin{array}{r} 100 \\ -\ 61 \\ \hline \end{array}$

k. $\begin{array}{r} 1000 \\ -\ 414 \\ \hline \end{array}$

l. $\begin{array}{r} 200 \\ -108 \\ \hline \end{array}$

Down

a. $\begin{array}{r} 500 \\ -375 \\ \hline \end{array}$

b. $\begin{array}{r} 100 \\ -\ 55 \\ \hline \end{array}$

c. $\begin{array}{r} 400 \\ -314 \\ \hline \end{array}$

d. $\begin{array}{r} 200 \\ -172 \\ \hline \end{array}$

g. $\begin{array}{r} 1000 \\ -\ 274 \\ \hline \end{array}$

h. $\begin{array}{r} 300 \\ -265 \\ \hline \end{array}$

i. $\begin{array}{r} 100 \\ -\ 52 \\ \hline \end{array}$

j. $\begin{array}{r} 1000 \\ -\ 961 \\ \hline \end{array}$

Subtracting Decimals

Subtract 1.8 from 4.5.

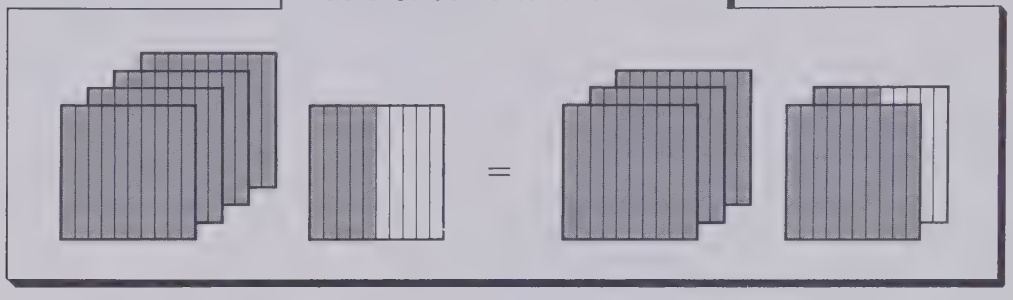
Line up the ones and the tenths.

$$\begin{array}{r} 4.5 \\ -\ 1.8 \\ \hline \end{array}$$

We cannot subtract 8 tenths from 5 tenths.

$$\begin{array}{r} {}^{3}\cancel{4}.{}^{15}\cancel{5} \\ -\ 1.8 \\ \hline \end{array}$$

Regroup 4 ones 5 tenths as 3 ones 15 tenths.



Subtract.

$$\begin{array}{r} {}^{3}\cancel{4}.{}^{15}\cancel{5} \\ -\ 1.8 \\ \hline 2.7 \end{array}$$

1.8 from 4.5 is 2.7.

Subtract.

1. $\begin{array}{r} 4.3 \\ -\ 2.6 \\ \hline \end{array}$ **2.** $\begin{array}{r} 7.1 \\ -\ 5.3 \\ \hline \end{array}$ **3.** $\begin{array}{r} 6.5 \\ -\ 4.6 \\ \hline \end{array}$ **4.** $\begin{array}{r} 5.2 \\ -\ 3.8 \\ \hline \end{array}$

5. $\begin{array}{r} 2.7 \\ -\ 1.8 \\ \hline \end{array}$ **6.** $\begin{array}{r} 3.5 \\ -\ 2.7 \\ \hline \end{array}$ **7.** $\begin{array}{r} 9.2 \\ -\ 6.3 \\ \hline \end{array}$ **8.** $\begin{array}{r} 8.4 \\ -\ 2.7 \\ \hline \end{array}$

Subtract across and down. Find the magic difference in the corner box.

9. $- \rightarrow$ / $\downarrow$

9.6	4.2	
3.6	1.4	

10. $- \rightarrow$ / $\downarrow$

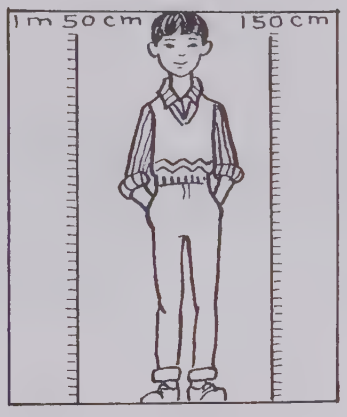
8.4	2.5	
6.7	1.5	

1.7 0.9

Metres, Centimetres, and Decimals

Steven is 1 m 50 cm tall.
He is 150 cm tall.

We can write 1 m 50 cm as 1.50 m.



Write as a decimal.

1. 3 and 42 hundredths _____

2. 4 and 51 hundredths _____

3. 2 and 7 hundredths _____

4. 6 and 17 hundredths _____

Complete the table.

5.	452 cm	_____ m and _____ cm	_____ m
6.	365 cm	_____ m and _____ cm	_____ m
7.	841 cm	_____ m and _____ cm	_____ m
8.	512 cm	_____ m and _____ cm	_____ m
9.	229 cm	_____ m and _____ cm	_____ m
10.	698 cm	_____ m and _____ cm	_____ m
11.	732 cm	_____ m and _____ cm	_____ m
12.	243 cm	_____ m and _____ cm	_____ m

3.42

4 m and 52 cm, 4.52

Multiplication, 0 to 5 as Factors

3 clowns are juggling 4 balls each.

$3 \times 4 = 12$

4 clowns are juggling 3 balls each.

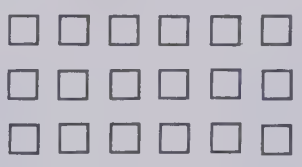
$4 \times 3 = 12$

Write two multiplication sentences for each picture.

1. 

_____

_____

2. 

_____

_____

3. 

_____

_____

Multiply. Draw a picture if you need to.

4.

2	3
$\times 3$	$\times 2$

5.

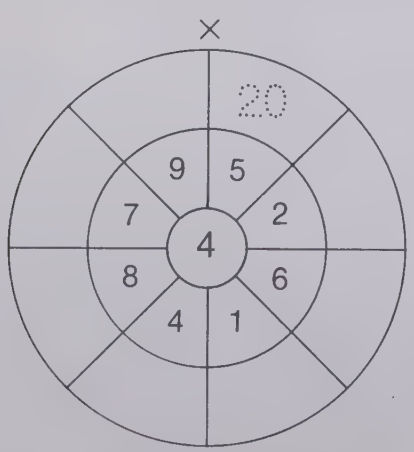
7	2
$\times 2$	$\times 7$

6.

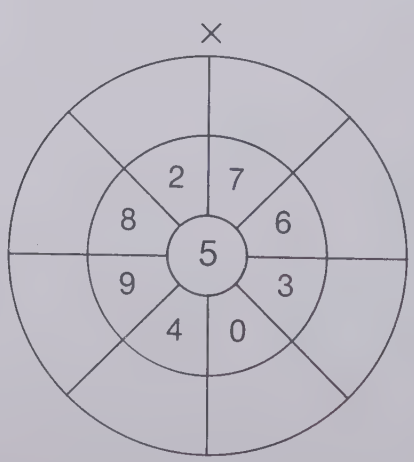
4	2
$\times 2$	$\times 4$

Complete the product wheel. Find the products by multiplying each number in the centre.

7.



8.



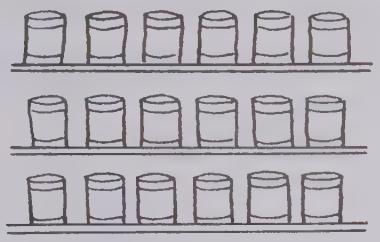
6, 6

$2 \times 5 = 10, 5 \times 2 = 10$

Multiplication, 6 to 9 as Factors

How many cans are on the shelves?

$6 + 6 + 6 = 18$
$6 \times 3 = 18$



There are 18 cans in all.

Multiply.

1. 5 × 6	**2.** 2 × 9	**3.** 3 × 8	**4.** 4 × 9	**5.** 6 × 7	**6.** 7 × 5
7. 7 × 8	**8.** 6 × 3	**9.** 9 × 4	**10.** 8 × 5	**11.** 4 × 8	**12.** 2 × 8

Here is a code.

42	49	48	27	35	54	32	45	63
P	A	L	I	E	Y	R	V	S

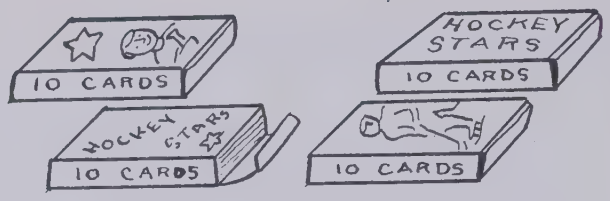
What is green and sings rock 'n' roll? Multiply to find the answer.

5 × 7	6 × 8	9 × 5	3 × 9	7 × 9

6 × 7	7 × 7	4 × 8	9 × 7	8 × 6	7 × 5	9 × 6

10 and 100 as Factors

There are 10 cards in each package.
Danny has 4 packages.
How many cards does he have in all?



Start at 0 and jump by tens.
Show 4 jumps.

Danny has 40 cards.

Complete.

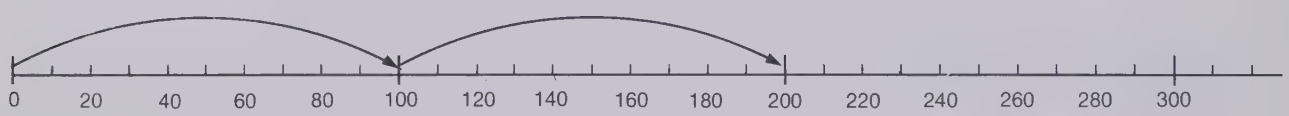
1. $7 \times 10 =$ _____ **2.** $1 \times 10 =$ _____ **3.** $3 \times 10 =$ _____

4. $9 \times 10 =$ _____ **5.** $2 \times 10 =$ _____ **6.** $8 \times 10 =$ _____

7. $0 \times 10 =$ _____ **8.** $6 \times 10 =$ _____ **9.** $5 \times 10 =$ _____

There are 100 marbles in each bag.
Leah has 2 bags.
How many marbles does she have in all?

Start at 0 and jump by hundreds.
Show 2 jumps.



Leah has 200 marbles.

Complete.

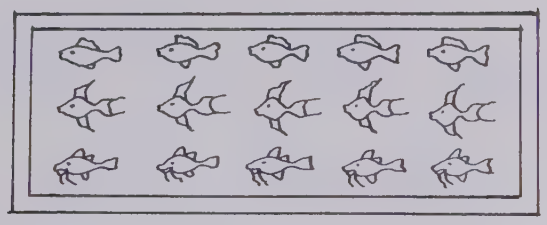
10. $3 \times 100 =$ _____ **11.** $6 \times 100 =$ _____ **12.** $5 \times 100 =$ _____

13. $8 \times 100 =$ _____ **14.** $4 \times 100 =$ _____ **15.** $0 \times 100 =$ _____

16. $1 \times 100 =$ _____ **17.** $9 \times 100 =$ _____ **18.** $7 \times 100 =$ _____

Divisors to 5

There are 15 fish for 3 fish tanks.
How many will go in each tank?



5 fish will go in each tank.

Divide 15 by 3.

Think: $3 \times 5 = 15$

×	5
3	15

$15 \div 3 = 15$ or $3\overline{)15}$ (5)

Fill in the missing numerals.

1.

×	___
2	8

→ $2\overline{)8}$

2.

×	___
4	24

→ $4\overline{)24}$

3.

×	___
3	12

→ $3\overline{)12}$

4.

×	___
5	25

→ $5\overline{)25}$

5.

×	___
5	30

→ $5\overline{)30}$

6.

×	___
4	16

→ $4\overline{)16}$

7.

×	___
3	27

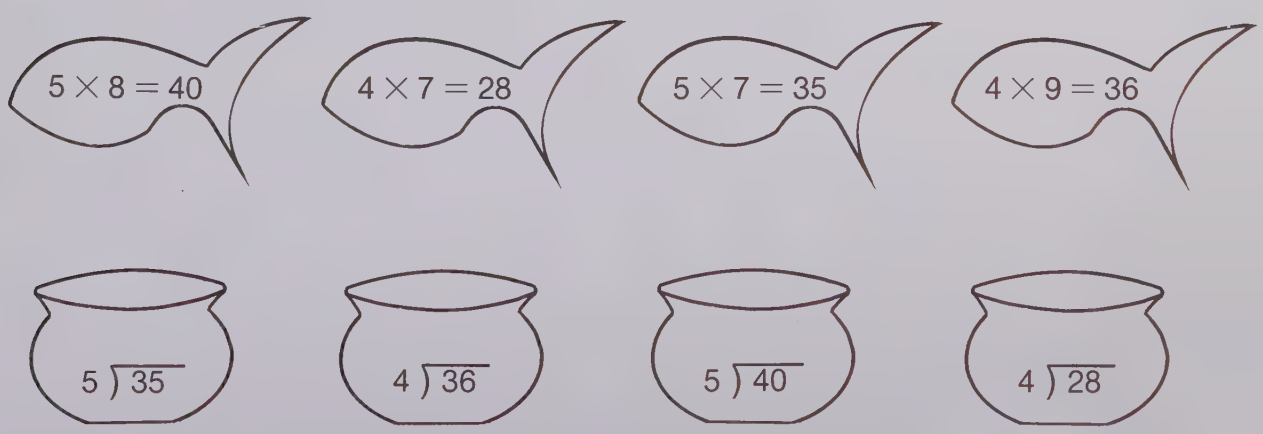
→ $3\overline{)27}$

8.

×	___
5	40

→ $5\overline{)40}$

Draw a line to match a multiplication fact with the related division.
Complete each division.



Divisors to 9

There are 42 bananas on 7 equal bunches.
How many bananas on each bunch?

$7 \overline{)42}$

Think.

×	6
7	42

There are 6 bananas on each bunch.

Fill in the missing numerals.

1.

×	
7	56

→ $7 \overline{)56}$

2.

×	
9	72

→ $9 \overline{)72}$

3.

×	
8	64

→ $8 \overline{)64}$

4.

×	
9	54

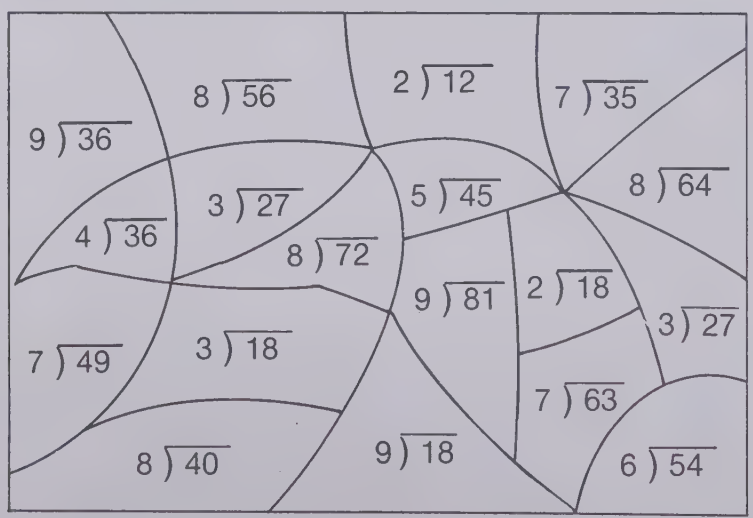
→ $9 \overline{)54}$

Divide.

5. $9 \overline{)36}$ **6.** $8 \overline{)48}$ **7.** $7 \overline{)63}$ **8.** $9 \overline{)45}$

9. $7 \overline{)28}$ **10.** $8 \overline{)40}$ **11.** $9 \overline{)72}$ **12.** $8 \overline{)56}$

Divide. Shade all the shapes containing an answer of 9.



Thinking of a Picture

Which picture goes with each problem? Give the letter.

1. Louisa picked 8 apples. She gave 6 to her friends. How many are left?

____

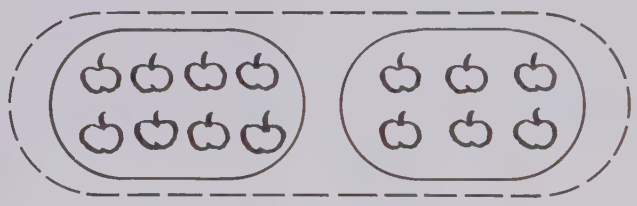
2. Marc picked 8 apples. Joan picked 6. Who picked more?

____

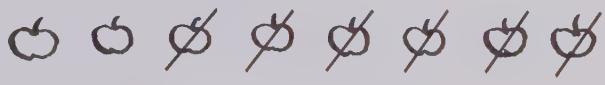
3. Marc picked 8 apples. Joan picked 6. How many did they pick in all?

____

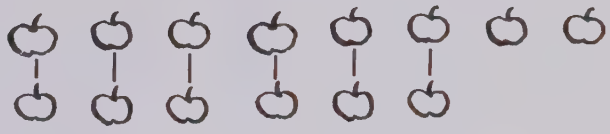
a.



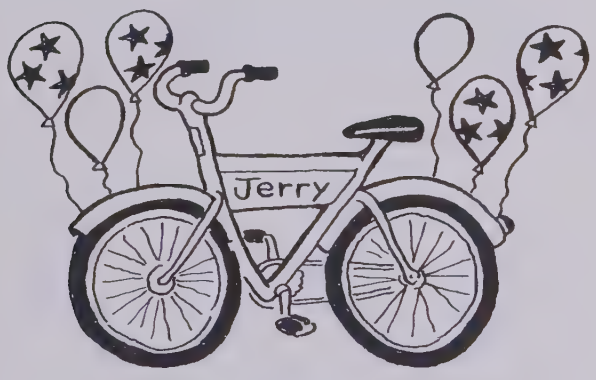
b.

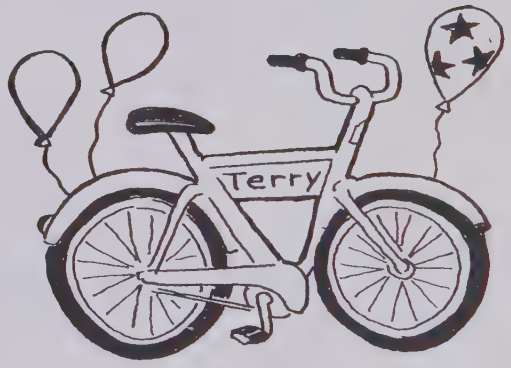


c.



Use these pictures for exercises 4 to 9.





4. Whose bike has 6 balloons? _____

5. How many balloons are on Terry's bike? ____

6. How many balloons with stars are on Jerry's bike? ____

7. How many balloons are on both bikes? ____

8. How many balloons have stars? ____

9. How many balloons have no stars? ____

NAME

Solving Problems Without Using Numbers

Tell how you would solve each problem. Write "add" or "subtract."

1. Julia had $■. She earned $▲. How much does she have now?

   _____

2. There are ■ peach trees. There are ▲ cherry trees. How many fruit trees there?

   _____

3. There are ■ children at the playground. ▲ children go home. How many are left?

   _____

4. I buy a book for $▲. I give the clerk $■. How much change should I get?

   _____

5. Mary's photo album has ■ pages. ▲ pages are empty. How many pages are not empty?

   _____

6. For the class picnic, there are ■ chocolate cookies. There are ▲ raisin cookies. How many cookies are there in all?

   _____

7. A crayon box holds ■ crayons. ▲ crayons are lost. How many are left?

   _____

8. One box has ■ eggs in it. There are ▲ eggs left in another box. How many eggs are there in all?

   _____

9. In Mr. Rose's room there are ▲ students. There are ■ students in Mrs. Lee's room. How many students are in both rooms?

   _____

10. ▲ coats are hanging up. Jack and Jill hang up their coats. Now how many coats are hanging up?

    _____

Too Much Information

Sometimes there is more information in a problem than you need.

There are (37 buttons) in a box.
12 buttons are blue, 15 are red, and
(10 are black). How many more red
buttons are there than blue buttons?

We do not need the facts that are circled.
We do need the facts that are underlined.

$15 - 12 = 3$ There are 3 more red buttons.

For each problem, draw a line through the information that you do not need. Underline the information that you do need.

1. For the class picnic there are 14 tuna sandwiches, 18 peanut butter sandwiches, and 5 L lemonade. How many more peanut butter sandwiches than tuna are there?

2. Six of the tuna sandwiches are on wholewheat bread. The rest are on white bread. 7 of the peanut butter sandwiches also have jelly. How many tuna sandwiches are on white bread?

3. The class also has 10 red apples, 15 yellow apples, 9 peaches, and 2 kg of grapes. How many apples are there in all?

4. Mr. Brown brought 12 chocolate cookies, 18 raisin cookies, and 20 tarts. How many cookies are there altogether?

5. At the fair, Marie spent $1.25 for 8 rides and John spent $2.35 for 12 rides. How much did they spend in all?

6. Lucy and Barbara went on 5 rides each. Margaret went on 8 rides. Each ride was 3 min. long. How many more rides did Margaret go on than Lucy?

7. John bought a book of 10 tickets for $2.50. He bought a red balloon for 65¢. How much did he spend in all?

8. Candy apples cost 40¢. Ice cream cones are 25¢ (small) or 35¢ (large). Lemonade is 35¢. How much does it cost to buy a lemonade and a candy apple?

Now solve all the problems. Write the answers below.

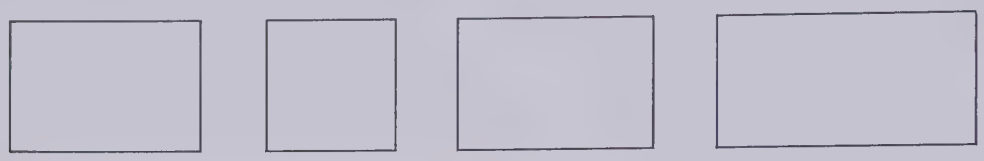
1. _____ 2. _____ 3. _____ 4. _____

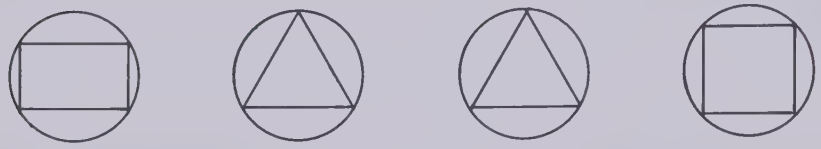
5. _____ 6. _____ 7. _____ 8. _____

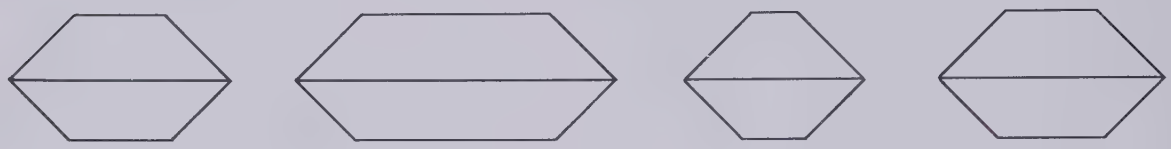
NAME

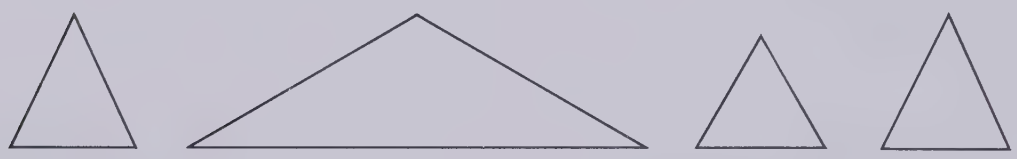
How Well Do You See?

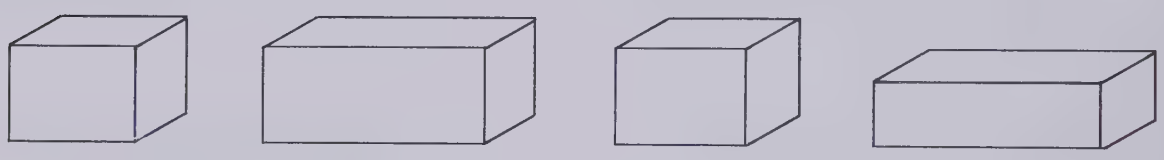
In each row, check the two shapes that are the same.

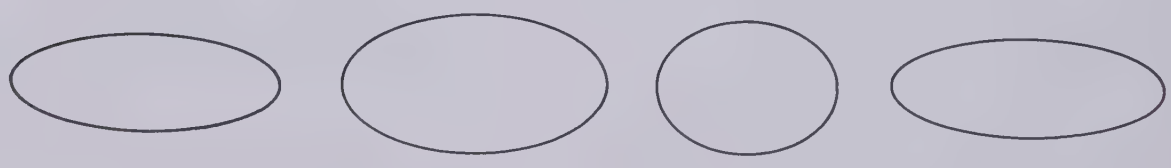
1. 

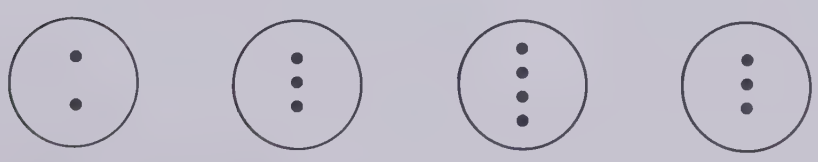
2. 

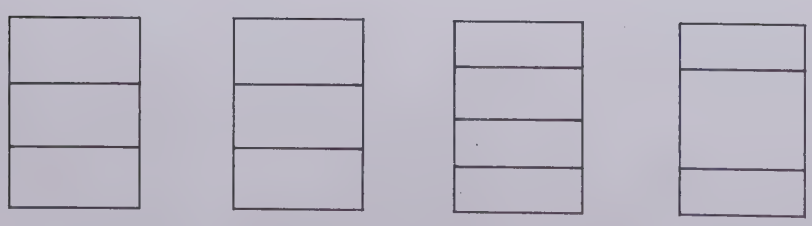
3. 

4. 

5. 

6. 

7. 

8. 

Solving Problems in Two Steps

Leo bought a can of dog food for 39¢ and a new leash for $1.89. He paid with a $5 bill. How much change should he get?

Step 1. Find the total bill.

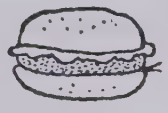
$$\begin{array}{rl} \$0.39 & \text{dog food} \\ +\ 1.89 & \text{leash} \\ \hline \$2.28 & \text{total} \end{array}$$

Step 2. Find how much change.

$$\begin{array}{rl} \$5.00 & \\ -\ 2.28 & \\ \hline \$2.72 & \text{change} \end{array}$$

Use these prices for exercises 1 to 6.

HAMBURGER SHACK



Regular	85¢
Super	$1.10
SuperDuper	$1.35

Cheese	
Canadian	30¢
Swiss	50¢
Onions	10¢
Bacon	25¢
Tomato	15¢

Drinks	
Orange	40¢
Small Milk	35¢
Large Milk	50¢
Chocolate Milk	40¢

1. Mario had a regular hamburger with tomato and onions. How much did it cost?

_____

2. How much is a Super hamburger with Canadian cheese and a small milk?

_____

3. Louise ordered a SuperDuper with onions. Then she had an orange drink. How much was her bill?

_____

4. Mary ordered a regular hamburger and a chocolate milk. Her sister had a Super with Swiss cheese. How much did they spend?

_____

5. You have a SuperDuper with onions and bacon. How much change do you get from $5.00?

_____

6. Danny and Luis each want a SuperDuper with bacon and a large milk. They have $5.00. Is it enough?

_____

NAME

Does the Answer Make Sense?

Whenever you solve a problem make sure your answer makes sense.

Charles is 10 years old. His sister Marie is older.
How old is Marie?

7 13 30

The answer is probably 13. Why?

For each exercise, underline the sensible answer.

1. How much did each student spent at the fair?
15 L 9 kg $6.25

2. What is the temperature in the schoolroom?
17° C 17 L 17 g

3. How tall is Mr. Anderson?
2 cm 2 m 2 kg

4. How heavy is John's baby sister?
9 L 9 g 9 kg

5. How many slices of bread are in one loaf?
20 200 2

6. How far does Ralph walk to school each day?
35 cm 90 km 2 km

7. There are 12 classrooms in my school. How many students are there?
2500 250 25

8. How much lemonade will a pitcher hold?
10 L 2 L 2 cm

9. About how many pages are there in your math textbook?
300 30 3000

10. About how far is it from Montreal to Vancouver?
5000 m 5000 kg 5000 km

How Would You Do It?

Somewhere on the page is the computation for each problem.
Find the computation and complete it.
Then write the answer on the line.

1. Frank has 178 Canadian stamps and 256 non-Canadian. How many stamps are there altogether?

_____

2. Of the 256 non-Canadian stamps, 103 are American. The rest are European. How many are European stamps?

_____

3. All the European stamps are French or German. If 62 are German, how many are French?

_____

4. Mary Louise has a collection of toy cars. She has 13 red ones, 17 blue ones, and 6 green ones. How many cars are there in all?

_____

5. How many more blue cars than red ones does she have?

_____

6. On Friday Mark jogged 1.5 km. On Saturday he jogged 2.3 km. How far did he jog during the two days?

_____

7. The band rehearsed for 1.5 h on Tuesday. They also rehearsed 2.3 h on Friday. How much longer did they rehearse on Friday?

_____

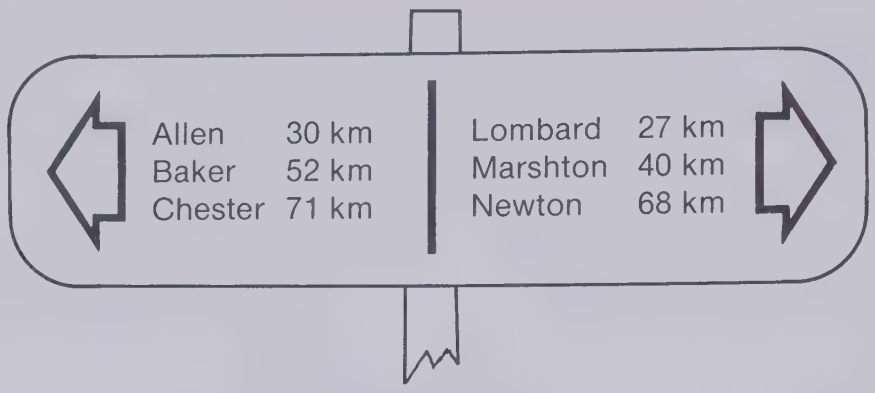
8. In one class there are 13 students with brown eyes and 17 students with blue eyes. How many students are in the class?

_____

$$\begin{array}{r} 256 \\ -\,103 \\ \hline \end{array} \qquad \begin{array}{r} 2.3 \\ +\,1.5 \\ \hline \end{array} \qquad \begin{array}{r} 17 \\ -\,13 \\ \hline \end{array} \qquad \begin{array}{r} 153 \\ -\,\,62 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ +\,13 \\ \hline \end{array} \qquad \begin{array}{r} 13 \\ 17 \\ +\,\,6 \\ \hline \end{array} \qquad \begin{array}{r} 178 \\ +\,256 \\ \hline \end{array} \qquad \begin{array}{r} 2.3 \\ -\,1.5 \\ \hline \end{array}$$

Drawing Pictures



For each problem, choose the correct picture. Then solve.

1. How far is it from Allen to Baker? ____ _____
2. How far is it from Baker to Lombard? ____ _____
3. How far is it from Chester to Marshton? ____ _____
4. How far is it from Allen to Chester? ____ _____
5. How far is it from Chester to Lombard? ____ _____
6. How far is it from Marshton to Newton? ____ _____

a. 

b. 

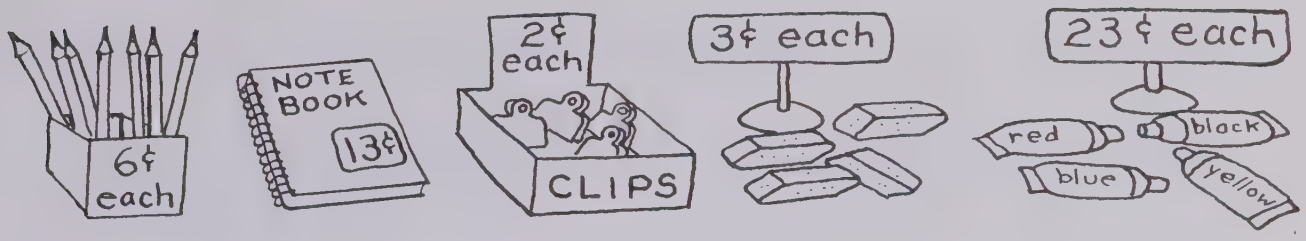
c. 

d. 

e. 

f. 

Guess and Test



1. Joanne spent 16¢. She has 2 items. What are they?

k

2. You spend 31¢. You have 4 items. What are they?

3. Ted bought 4 items. He spent less than 25¢. What could he have bought?

4. You want to make 25¢ with 4 coins. How could you do it? Use the table to help.

1¢	5¢	10¢

5. Using 1¢, 5¢, and 10¢ coins, what is the least number of coins you can use to make 25¢?

6. How can you make 73¢ with 8 coins? with 7 coins?

three 1¢ 5¢ one 10¢ and

1¢	5¢	10¢	25¢	50¢

7. What is the greatest amount that you can make with 3 different coins?

16¢

8. What is the least amount that you can make with 3 different coins?

1¢	5¢	10¢

9. How many different amounts can you make with a penny, a nickel, and a dime?

make 7 different amounts
with a penny a nickel and a dime.

What Do You Think?

For each problem, circle the operation you would use to solve it.

1. There are ■ students in the class.
Each one has ▲ pencils.
How many pencils in all?

+ − (×) ÷

2. Jules is ■ cm tall.
His little sister is ▲ cm tall.
How much taller is Jules?

+ − × ÷

3. There are ■ crayons in the box.
▲ crayons are red.
How many are not red?

+ (−) × ÷

4. There are ■ crayons in each box.
There are ▲ boxes.
How many crayons are there?

+ − × ÷

5. There are ▲ desks in a row.
There are ■ rows.
How many desks are there?

+ − (×) ÷

6. There are ▲ desks in a row.
There are ■ desks in all.
How many rows are there?

+ − × (÷)

7. There are ■ milk bottles.
There are ▲ bottles in a case.
How many cases are there?

+ − × (÷)

8. There are ■ milk bottles
and ▲ soda bottles.
How many bottles are there?

(+) − × ÷

9. The temperature is ■ °C.
One hour ago it was ▲ ° colder.
What was the temperature then?

+ − × ÷

10. The temperature one hour ago
was ■ °C. It rose ▲ °.
What is the temperature now?

(+) − × ÷

More Information Needed

Check the fact you need. Then solve the problem.

	Facts
1. Julie's bowling score was 149. How much more was that than John's score?	a. John bowled 160. b. John bowled 123. c. John is 2 years younger than Julie.
2. Minta works as a baby-sitter. She worked 4 h last week. How much did she earn?	a. She charges $1.25 an hour. b. She took care of 2 children. c. She only baby-sits on Saturday.
3. At the record shop Mitch bought 3 records. How much did he spend?	a. The records were rock-and-roll. b. Each record cost $3.79. c. The store is open until 7:30 p.m.
4. Henry's book has 135 pages. How many more does he have to read?	a. Henry has read 4 books this month. b. The dictionary has over 1000 pages. c. Henry has read 53 pages.
5. My collie has a mass of 34 kg. How much lighter is the poodle?	a. The beagle has a mass of 16 kg. b. The poodle is black. c. The poodle has a mass of 24 kg.
6. There were 38 dogs at the school pet show. How many cats and dogs were there?	a. 9 people bought parakeets. b. There were 42 cats. c. There were no frogs.

Choosing the Information Needed

Use this story for exercises 1 to 7.

During the school vacation the Martins went on a trip. They drove 300 km a day for 3 days. One day the temperature was 20° C. They stopped at a gas station on Saturday and bought 52 L of gas for 47¢ a litre. The car also needed 2 L of oil at $1.89 a litre.

One day they had a picnic. Mrs. Martin bought a loaf of bread for 89¢ and 6 peaches for 25¢ each. She also bought 1 kg of sliced meat for $9.40 and 1 L of milk for $1.10. Mrs. Martin gave the clerk a $20 bill.

1. How far did they drive?

_____

2. How much did they pay for gas on Saturday?

_____

3. How much was the oil?

_____

4. What was the total bill at the gas station?

_____

5. How much did the peaches cost?

_____

6. What was the total cost of the meat and the milk?

_____

7. How much change did Mrs. Martin get?

_____

Finding the Missing Information

For each problem, do the following.

A. Identify the missing information.
B. Tell how to find it.
C. Tell how to solve the problem.

1. The kittens are in a box. There are 3 black ones. How many are not black?

A. _____

B. _____

C. _____

2. A pack of construction paper has 48 sheets. How many were used?

A. _____

B. _____

C. _____

3. How many weeks until the end of school?

A. _____

B. _____

C. _____

4. Four students cannot go on the class trip. How many are going?

A. _____

B. _____

C. _____

5. How much farther is it from Calgary to Regina than from Calgary to Edmonton?

A. _____

B. _____

C. _____

Skills Practice

Solve. If there is not enough information, tell what is missing.

1. Tim went to a garage sale. He bought a pair of ice skates for $5.00 and a hockey stick for $2.35. How much did he spend?

_____

2. Tim started with $10. How much did Tim have left? (See exercise 1.)

Tim got 2.65 back.

3. At the sale Mrs. Brown bought 6 napkins for 25¢ each. How much did she spend on the napkins?

$1.50

4. Mrs. Brown also bought 7 plates for 35¢ each. How much did she spend at the sale? (See exercise 3.)

$ 3.95 she

5. How much money did Mrs. Brown have left? (See exercise 4.)

do not know

6. At one table there was a box of old jars. Jars with lids cost 10¢ and jars without lids cost 5¢. Laurie bought 8 jars with lids. How much did she pay?

_____

7. Martha bought a game for 75¢. Then she bought some dominoes for 40¢. She had $3.00 with her. How much was left?

$1.65 was left

8. Greg paid $3.60 for 9 old records, 39¢ for a bag of marbles, and 25¢ for a pack of hockey cards. How much did he spend?

_____

9. Marcy saw a doll's carriage for $1.85 and a wagon for $3.50. She has $5.00. Can she buy the carriage and the wagon?

_____

10. Mrs. King bought a wheelbarrow for $3.75 and a rake. How much did she spend?

_____

much

More Than One Solution

Each problem has more than one solution. Give as many as you can.

1. How many ways can you make 25¢?
Use the table to help you.
Make the table longer if you need to.

1¢	5¢	10¢	25¢

SIX

2. The sum of three numbers is 8. What could the numbers be?
Do not use zero.

The numbers could be 5, 1 and 2
or 3, 3 and 2

3. The product of two numbers is 36. What could the numbers be?

The numbers could be 20 and 16

4. The product of three numbers is 24. What are the numbers?
Do not forget the number 1.

The numbers are 1, 12 and 2,

5. Karin spent $1.00 on stamps.
She bought 10¢ and 15¢ stamps.
How many of each did she buy?

10¢	15¢
	2
7	

6. How many different ways can you find to cut a square in half? SIX

The Concluding Statement

These questions were taken from problems. The answers are in the box.
For each question, find the answer and write a concluding statement.

1. How much more is John's mass than his sister's?

_____

_____

2. How much did she spend in all?

_____

_____

3. How many bottles are there in 24 boxes?

_____

_____

4. How heavy were the 4 pigs together?

_____

_____

5. How far does Leif ride on the school bus each week?

_____

_____

6. How many buns did they buy?

_____

_____

7. How many sheets of paper are there in 10 packs?

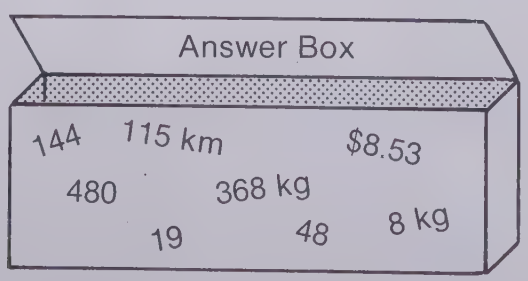
_____

_____

8. How many fish did they catch together?

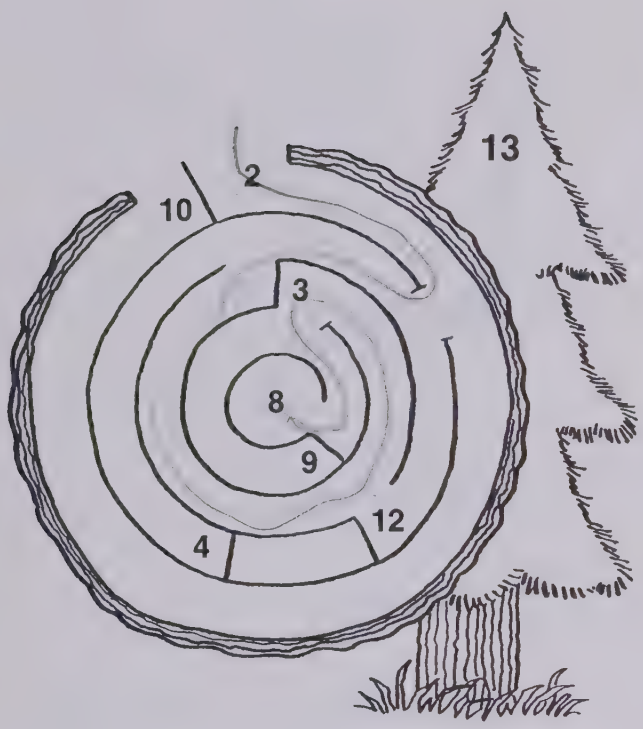
_____

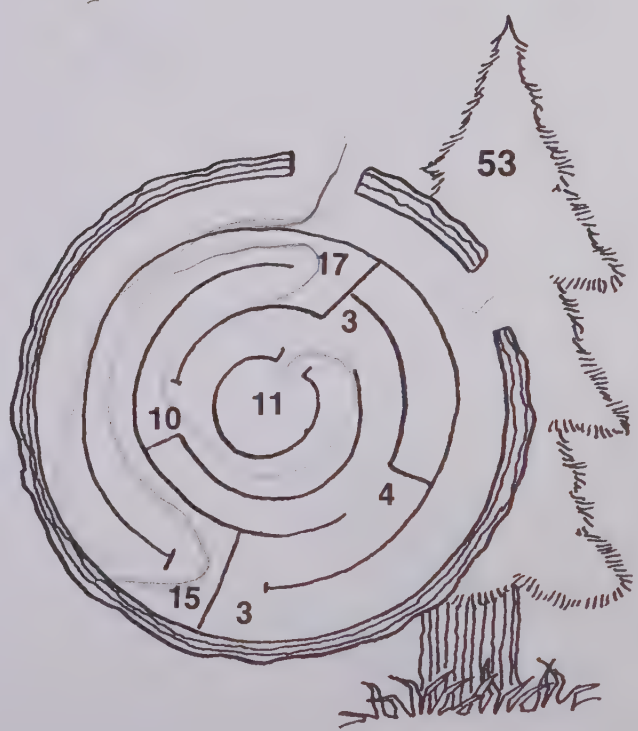
_____



Tree Sums

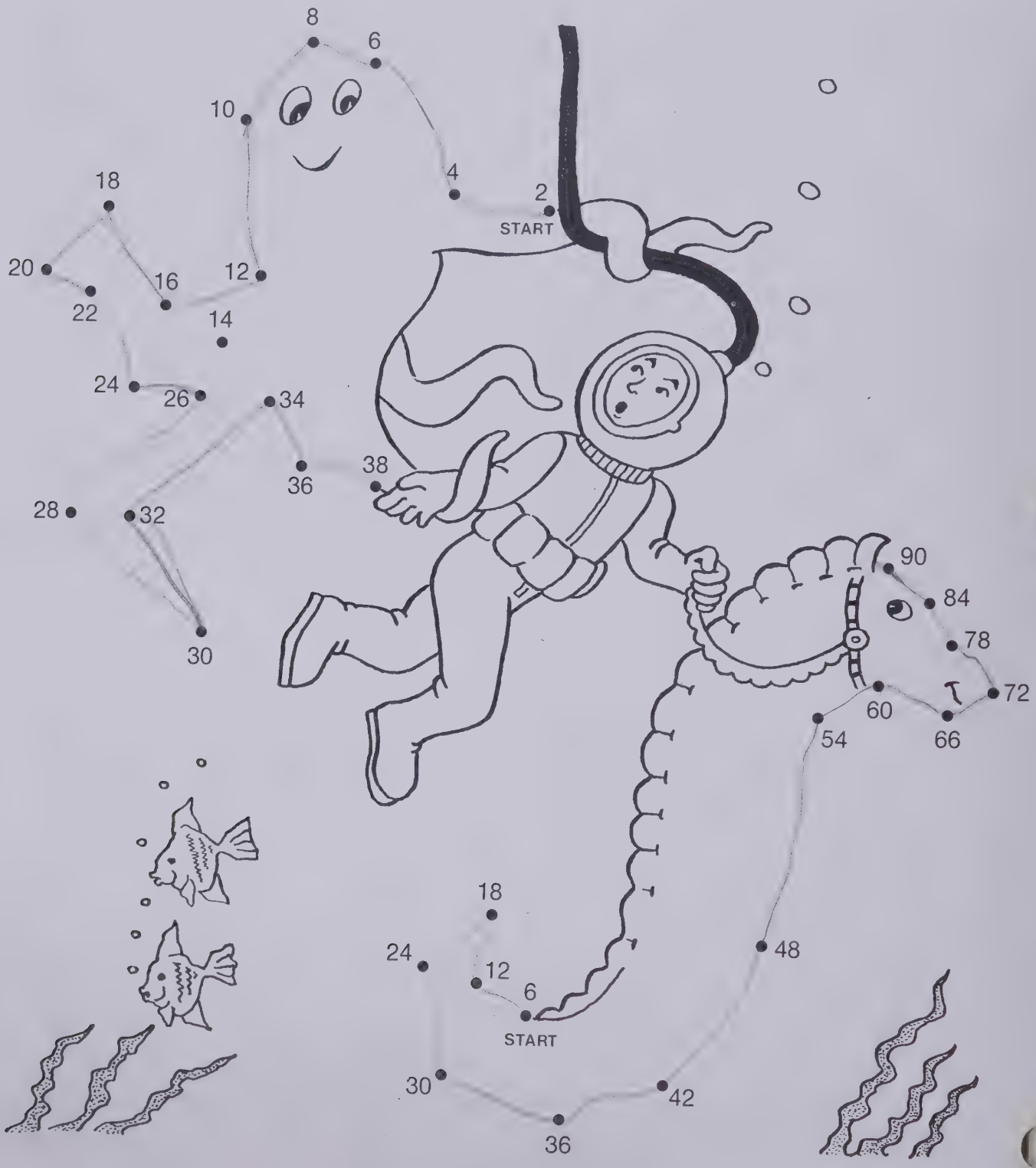
Begin in the middle of the tree trunk. Draw a path through the maze so that the sum of the numbers equals the number on the tree.





Deep-Sea Patterns

Connect the dots in the two figures below following the pattern of the numbers.



Mystery Digits

Find the digits for each shape.

1.
$$\begin{array}{r} \square\ 5 \\ +\ 4\ \triangle \\ \hline 8\ 2 \end{array}$$

2.
$$\begin{array}{r} 2\ \square \\ +\ \triangle\ 2 \\ \hline 8\ 3 \end{array}$$

3.
$$\begin{array}{r} 8\ \square \\ +\ \square\ 2 \\ \hline 1\ 1\ 6 \end{array}$$

4.
$$\begin{array}{r} 2\ 1\ \triangle \\ +\ 1\ \square\ 2 \\ \hline \square\ \triangle\ 6 \end{array}$$

5.
$$\begin{array}{r} 2\ \diamond\ 2 \\ +\ 4\ 9\ \triangle \\ \hline \diamond\ \triangle\ 8 \end{array}$$

6.
$$\begin{array}{r} \triangle\ 4\ \square \\ +\ 1\ 8\ 2 \\ \hline \square\ 2\ 6 \end{array}$$

7.
$$\begin{array}{r} \square\ 0\ 8 \\ +\ \ \triangle\ 5 \\ \hline 4\ 0\ \square \end{array}$$

8.
$$\begin{array}{r} 4\ \square\ 5 \\ +\ \square\ 9\ 6 \\ \hline \triangle\ \square\ \square \end{array}$$

Euler's Formula

Leonard Euler lived in Europe from 1707 to 1783. He found that in a solid the sum of the number of vertices and the number of faces is equal to the number of the edges plus 2. His discovery, called *Euler's formula,* is:

Vertices + **F**aces = **E**dges + 2

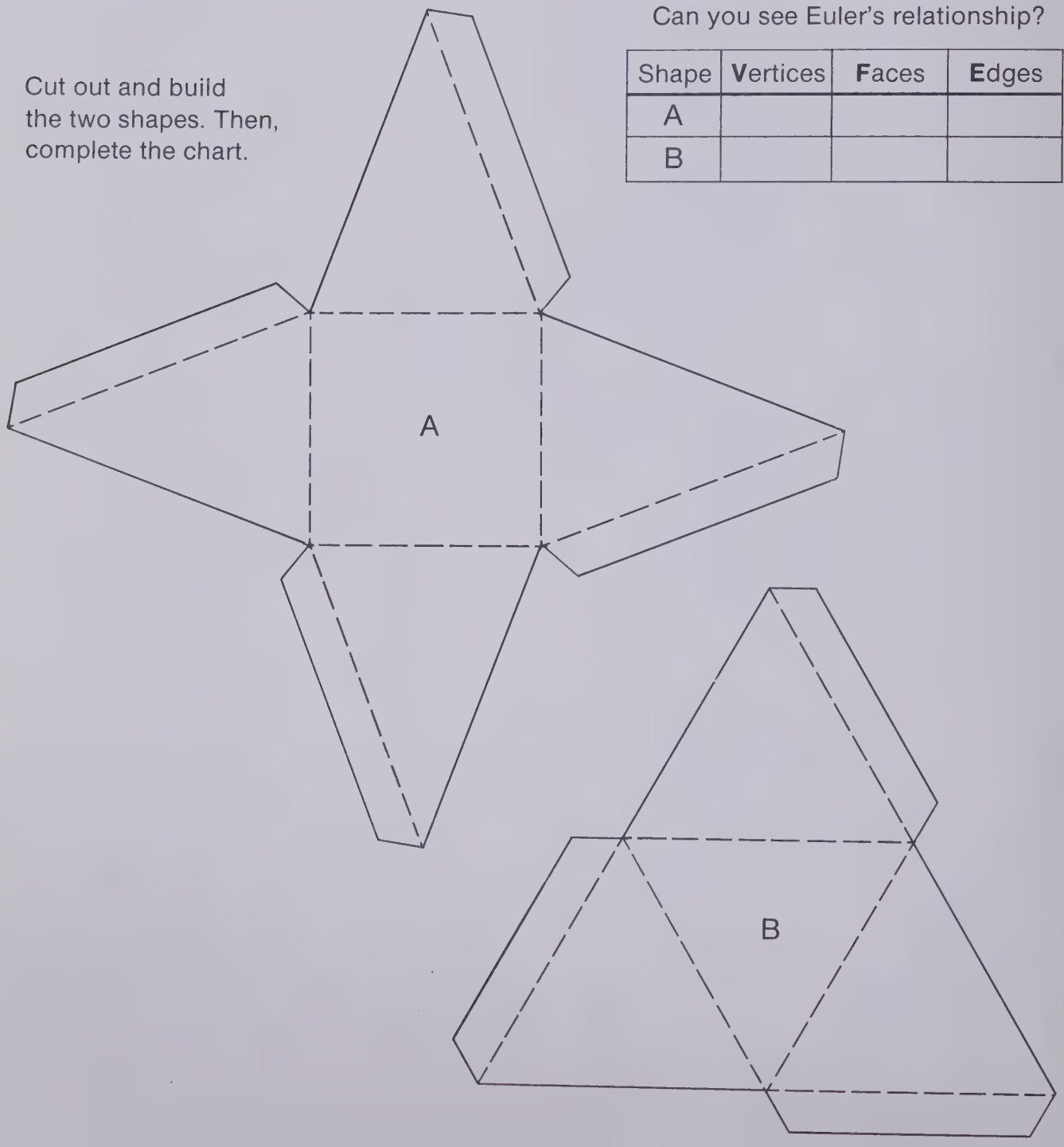
or

V + F = E + 2

Cut out and build the two shapes. Then, complete the chart.

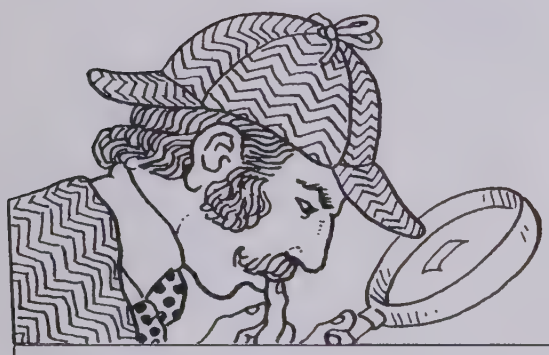
Can you see Euler's relationship?

Shape	**V**ertices	**F**aces	**E**dges
A			
B			



Hidden Subtractions

There are 8 subtractions hidden in the chart below.
One is given to you.
Can you find the rest?

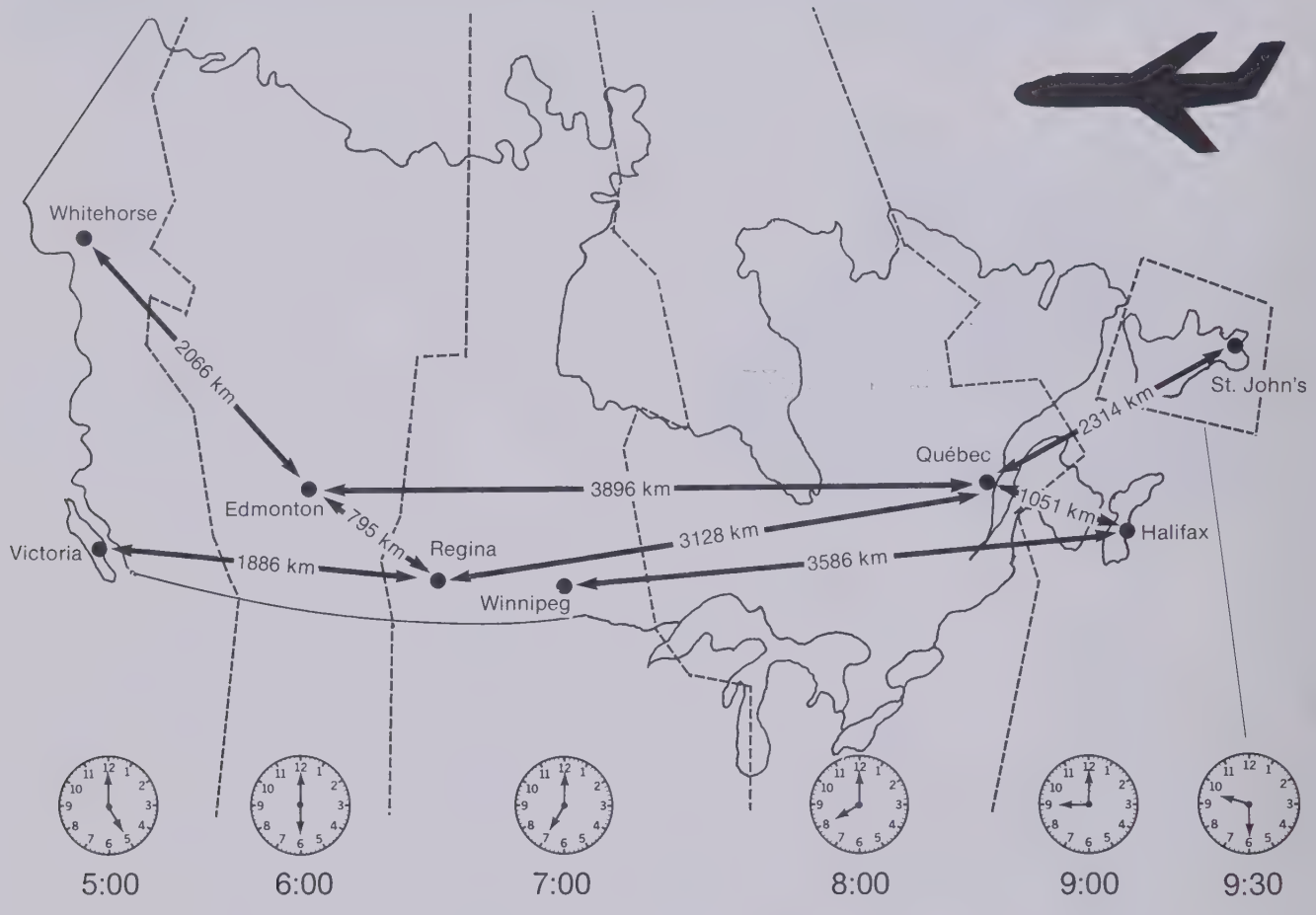


391	445	60	423	488	49
728	162	191	7	157	302
− 193	605	41	200	331	11
535	18	22	1	256	443
210	241	19	842	3	83
394	939	239	571	83	7
52	460	315	271	750	76
342	278	122	420	78	2
6	182	528	68	5	88
100	74	10	12	73	222

NAME

Time Zones

The world is divided into 24 time zones.
The map below shows some time zones in Canada.

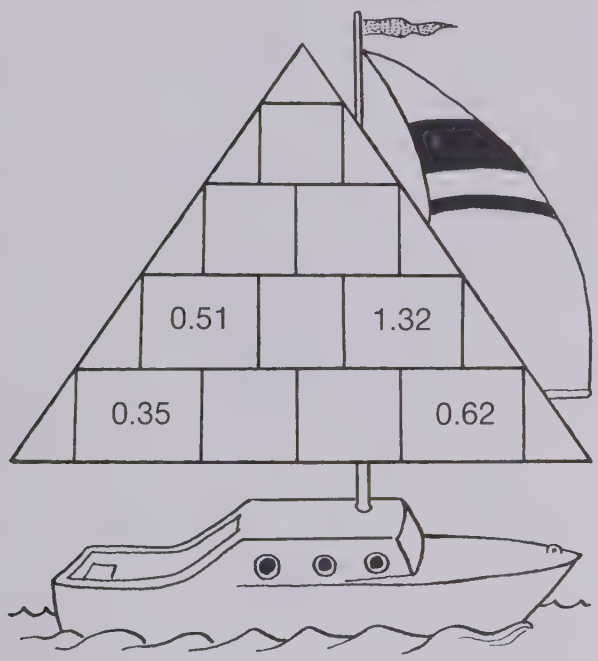


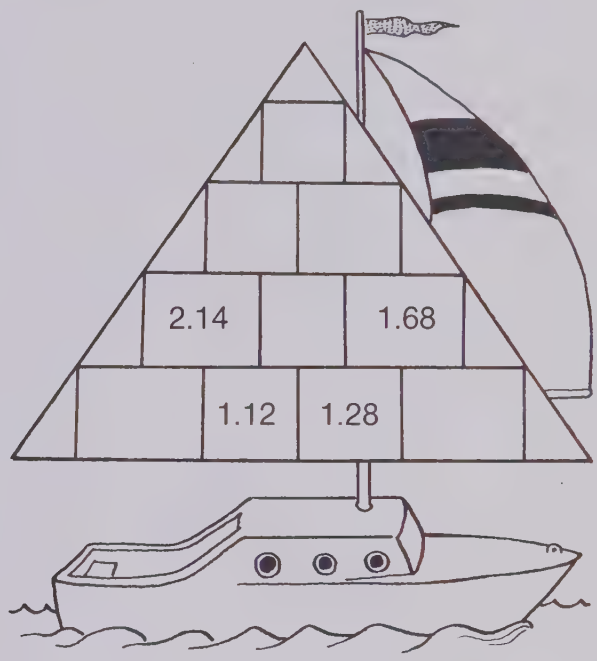
Complete the flight chart.

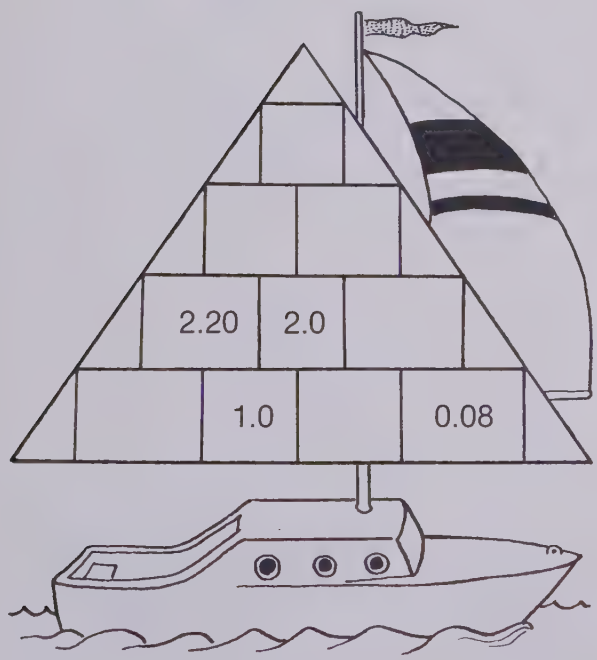
Flight	Departure	Arrival	Distance Travelled
Edmonton – Québec	_____	_____	_____
Halifax – Winnipeg	_____	_____	_____
Whitehorse – Regina	_____	_____	_____
Halifax – Québec	_____	_____	_____

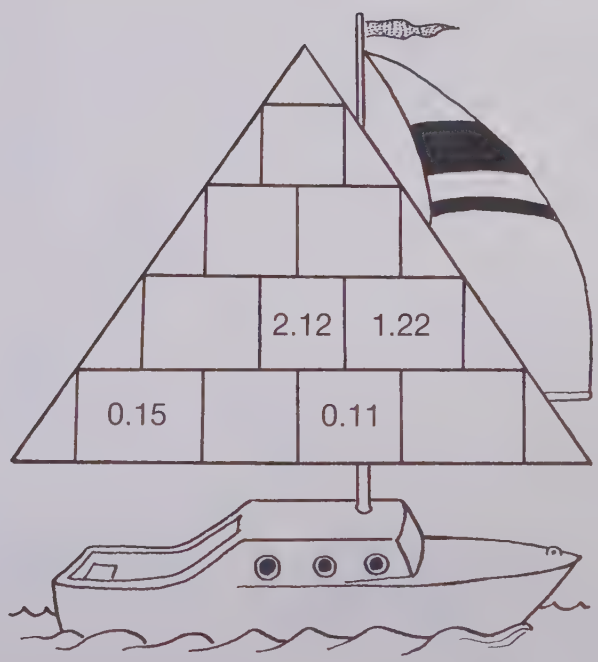
Pyramid Power Boats

Complete the sails of the boat. In any box the number is equal to the sum of the two decimal numbers of the two boxes underneath.



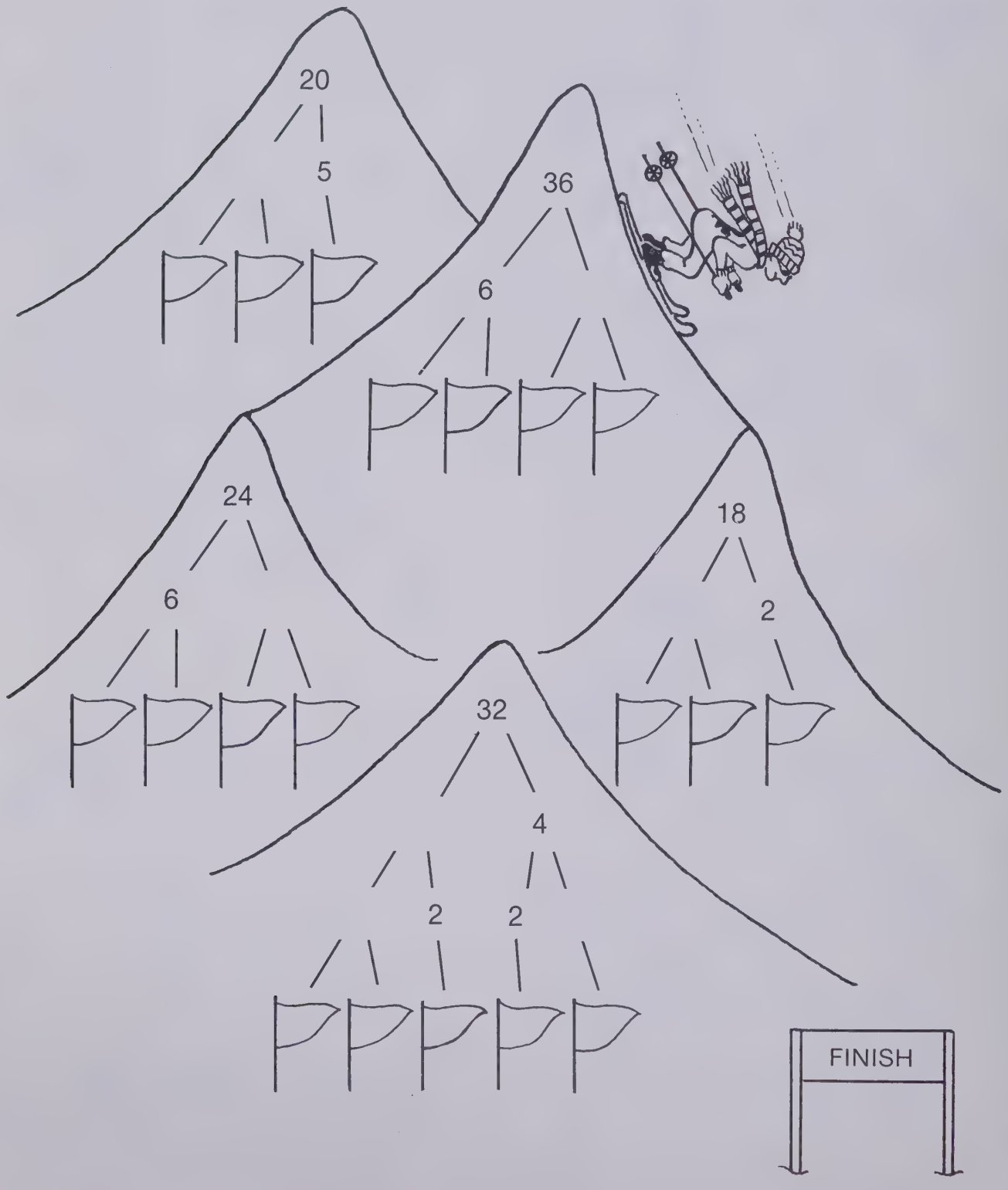






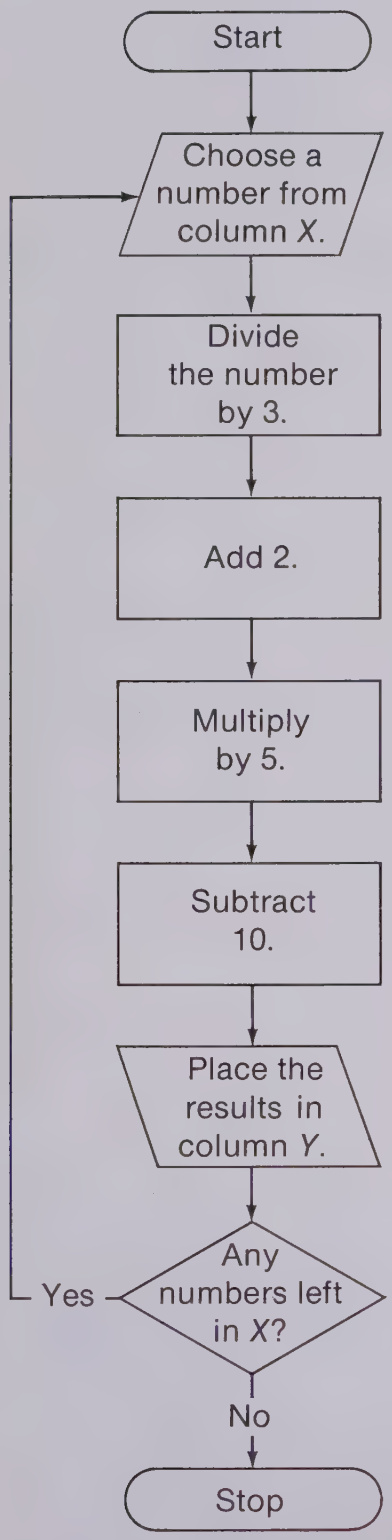
Factoring Fun

Help the skier down the mountain.
Find the factors that equal the product above them.

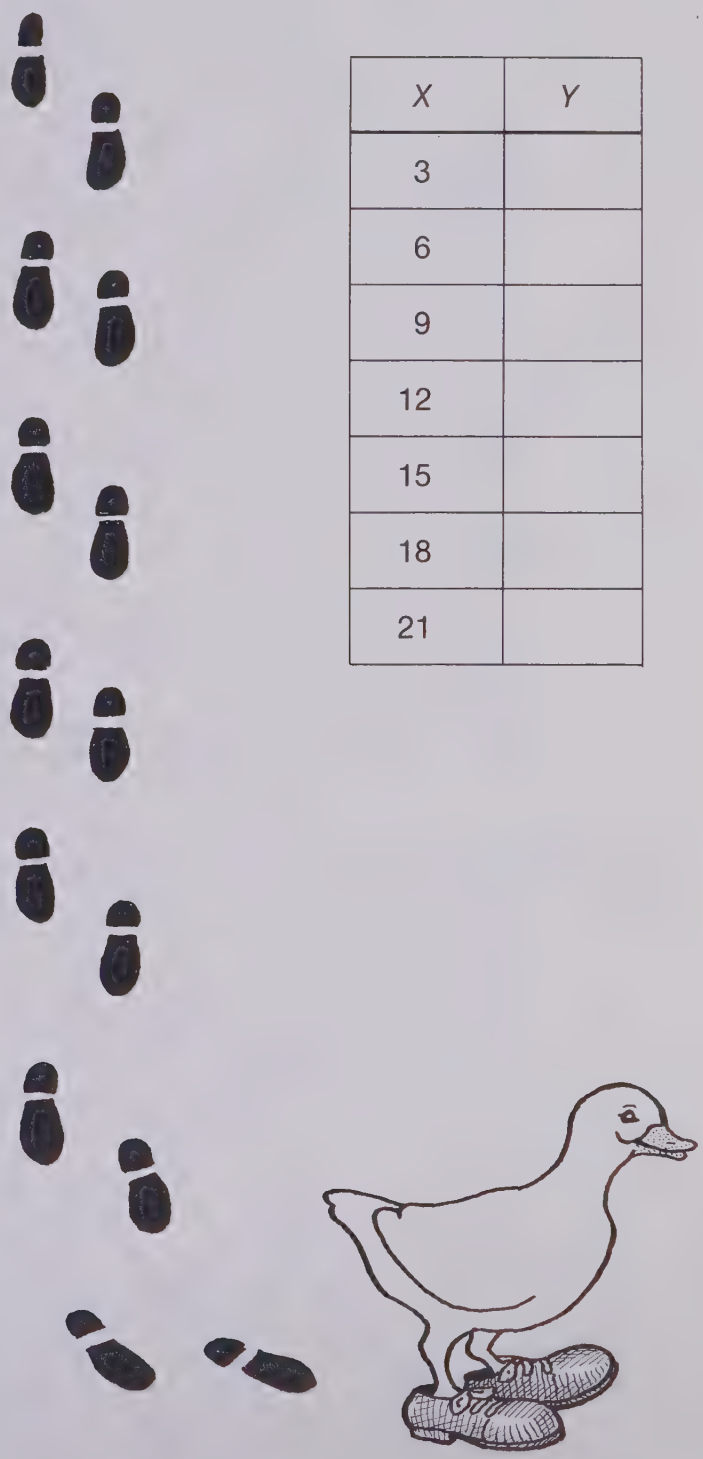


Quacky Flow Chart

Put the correct number in column *Y* by following the flow chart step by step.



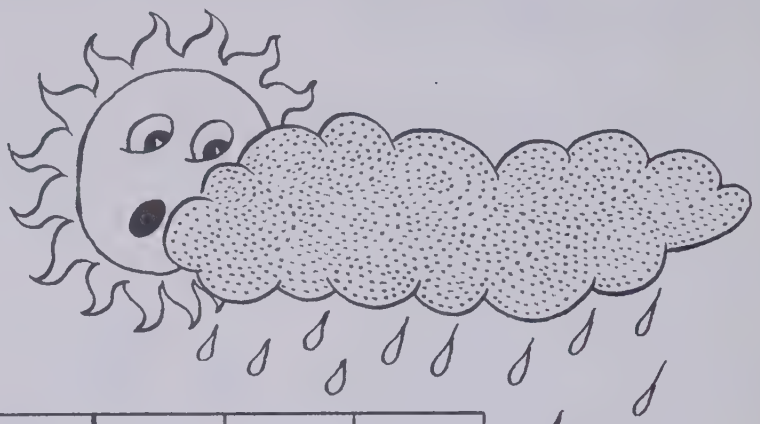
X	*Y*
3	
6	
9	
12	
15	
18	
21	

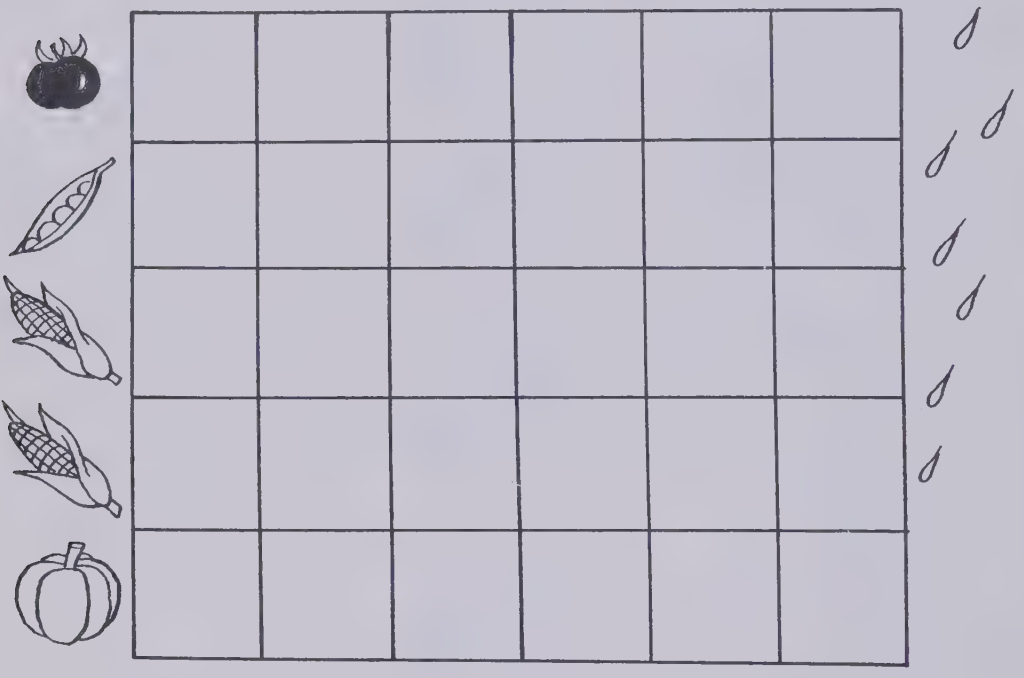


Planning a Garden

A pictograph uses pictures to show numbers.

Follow the directions below to make a pictograph.



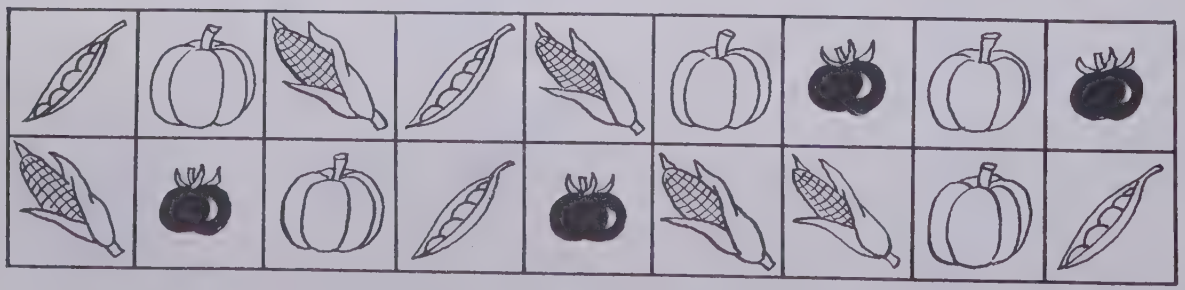


Each stamp is equal to 4 plants. Cut and paste the stamps onto the pictograph to show:

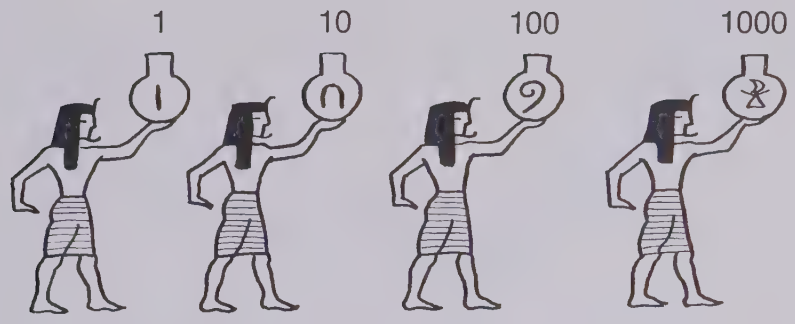
6 tomato plants
12 pea plants
16 stalks of corn in two even rows
18 pumpkin plants

Cut and paste.

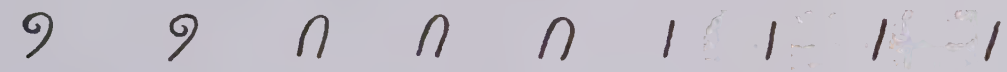
1 stamp = 4 plants



Egyptian Numbers

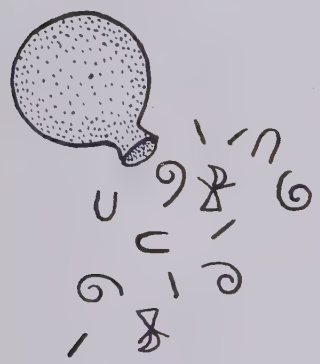


Some Egyptian symbols and their values are given above. The Egyptians would add the numbers that these symbols represent this way.



100 + 100 + 10 + 10 + 10 + 1 + 1 + 1 + 1 = 234

Can you find the number for the Egyptian symbols?



1.  = _____

2.  = _____

3.  = _____

4.  = _____

5.  = _____

6.  = _____

7. Tut's teacher scratched the date 2452 B.C. in the sand. Can you write in Egyptian numerals?

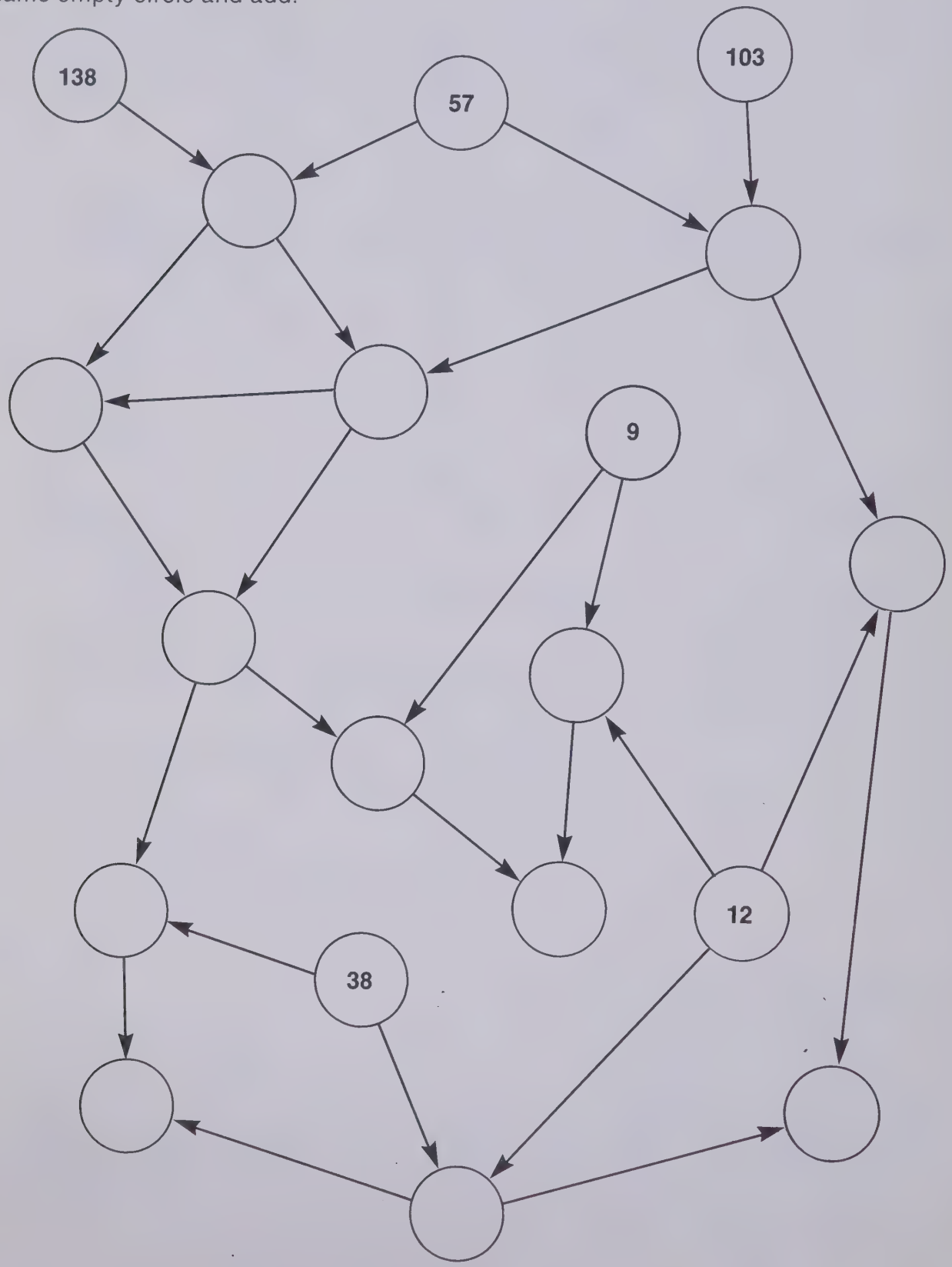
_____

8. 324 Roman legions were seen marching in the desert. How was the number recorded in Egyptian numerals sent to Cairo?

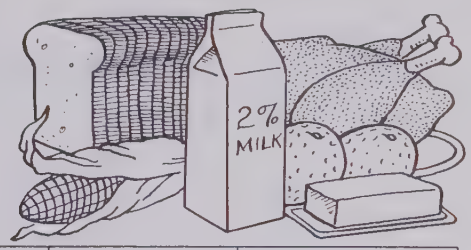
_____

Addition Puzzle

Complete the puzzle. Take the two numbers whose arrows point to the same empty circle and add.



Food That's Good for You



Nutritious Food	Measure	Food Energy (calories)	Calcium (mg)	Vitamin A (IU)
milk	$\frac{1}{2}$ L	320	567	700
cream	$\frac{1}{2}$ L	1780	358	7340
chicken	93 g	115	8	80
corn	1 ear	70	2	310
orange juice	1 can	360	75	1620
bread	1 loaf	1225	381	—
butter	60 g	810	23	3750

1. Mrs. Lauzon's students are planning a picnic. David is bringing 2 loaves of bread and 120 g of butter. How much food energy is in the food David is bringing?

_____

2. The food Robin's mom put in the shopping cart had a Vitamin A content of 9128 IU. She decided to put $\frac{1}{2}$ L of cream back on the shelf. How much Vitamin A was in the food left in the cart?

_____

3. The dentist told Laura she needs more calcium in her diet to make her teeth strong. For lunch she drank $\frac{1}{2}$ L of milk and ate 93 g of chicken. How many milligrams of calcium did Laura have?

_____

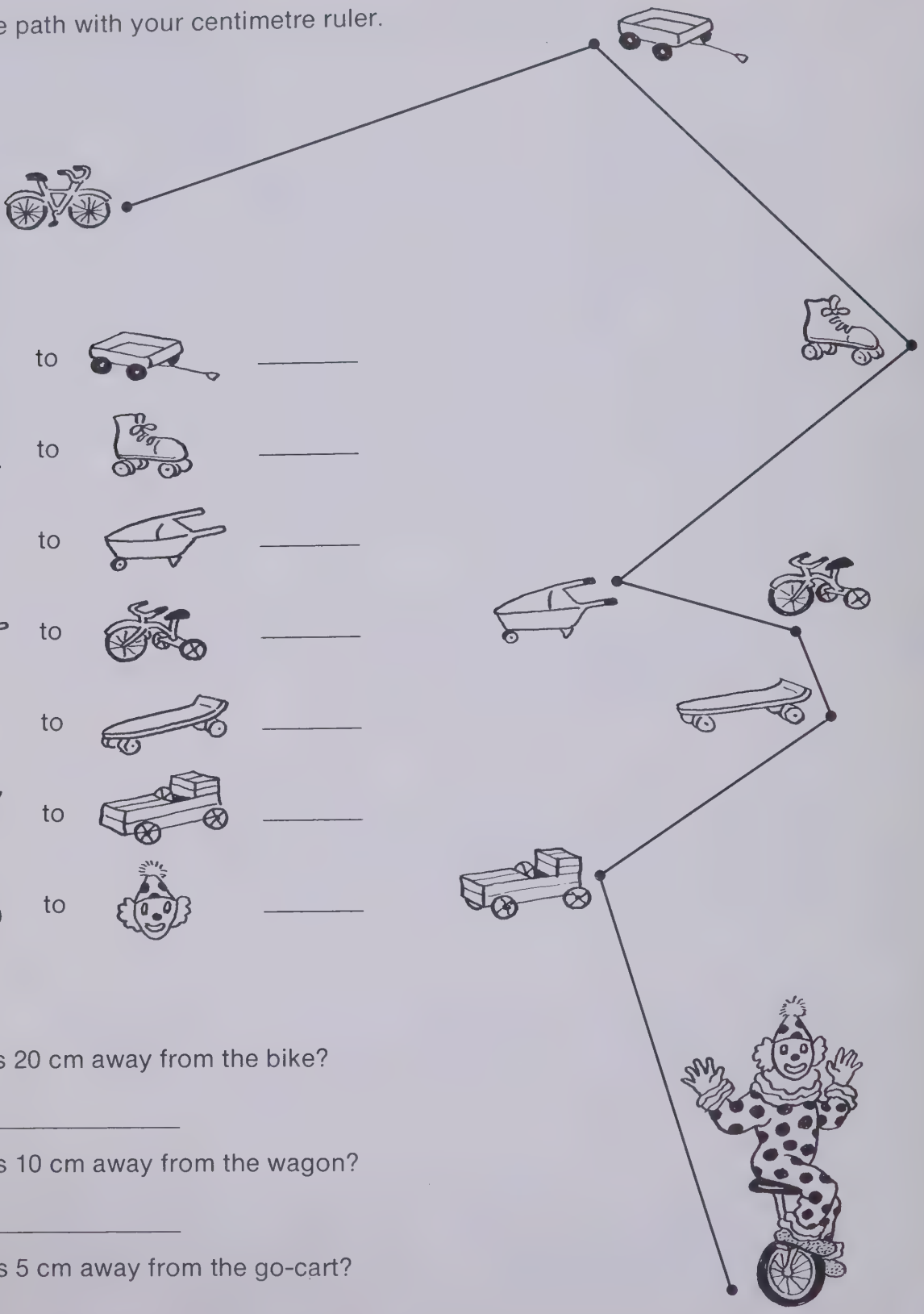
4. When Marc runs a race his body burns up 1129 calories. If he stops to drink one can of orange juice while racing, how many calories will he lose during the race?

_____

NAME

Centimetre Path

Measure the path with your centimetre ruler.



 to _____

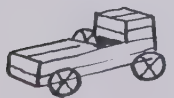
 to _____

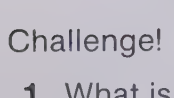
 to _____

 to _____

 to _____

 to _____

 to _____

 to _____

Challenge!

1. What is 20 cm away from the bike?

   _____

2. What is 10 cm away from the wagon?

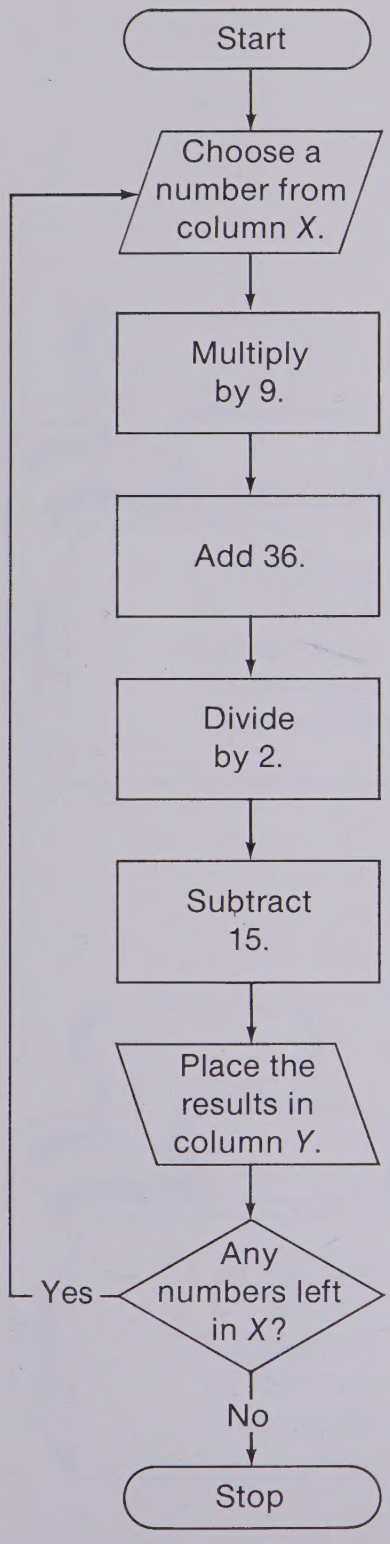
   _____

3. What is 5 cm away from the go-cart?

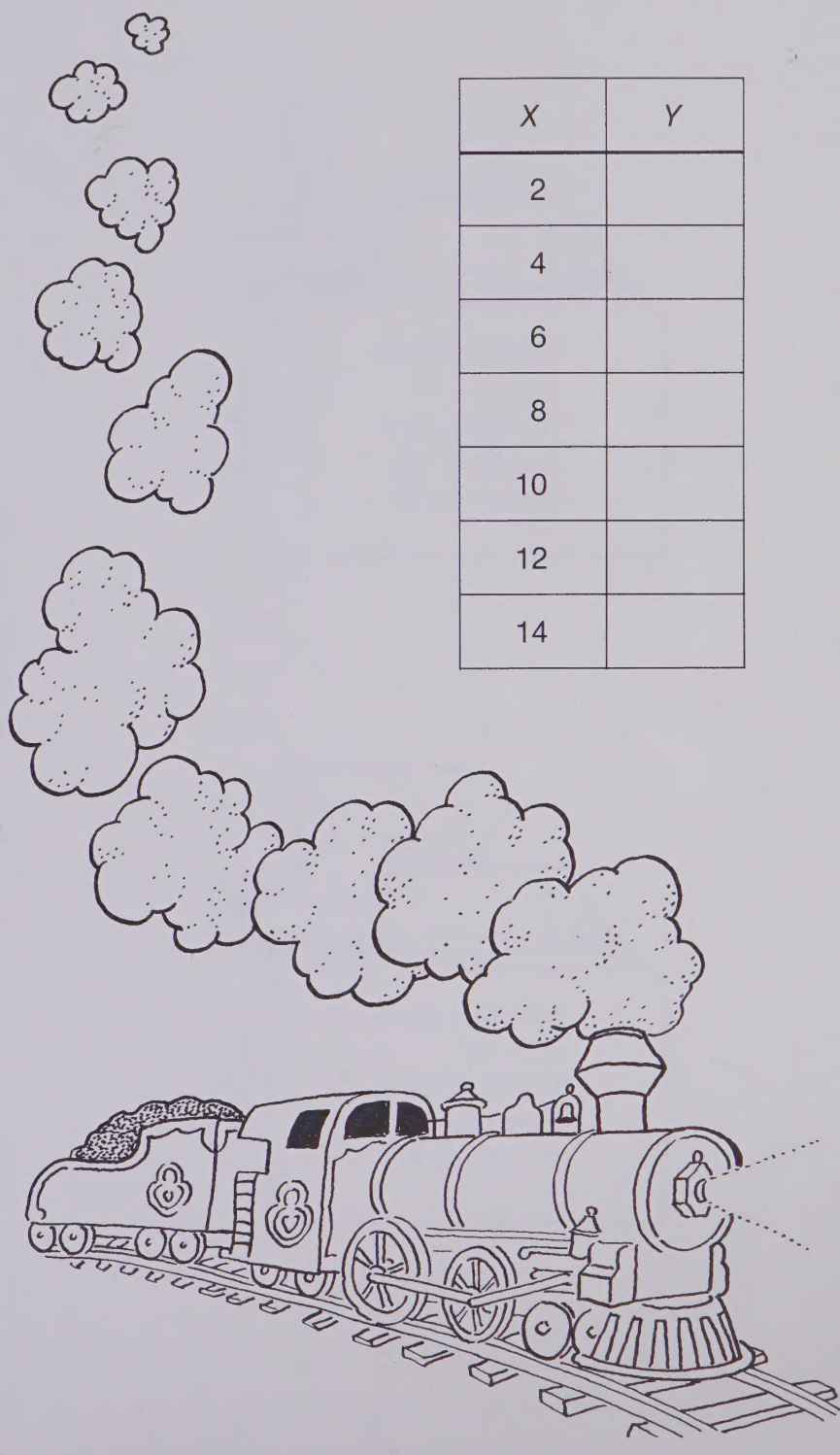
   _____

Steamy Flow Chart

Put the correct number in column *Y* by following the steps in the flow chart.

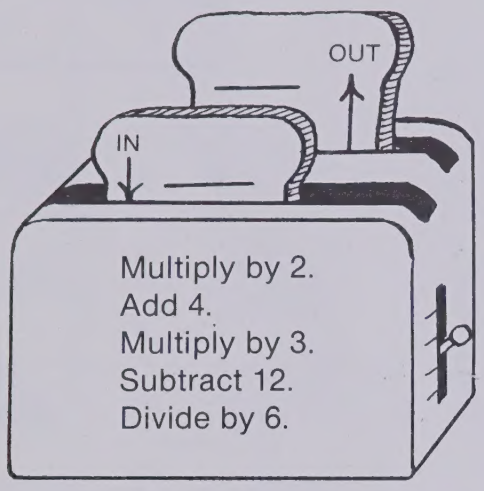


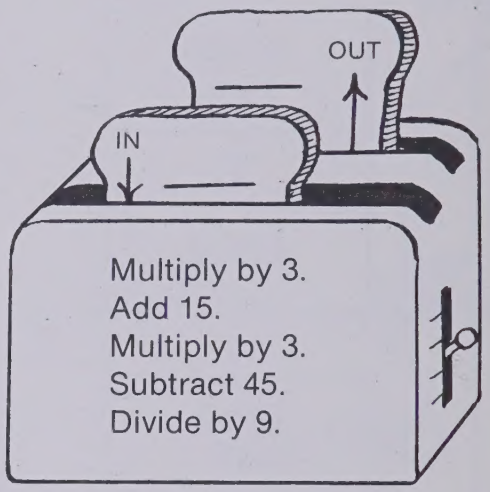
X	*Y*
2	
4	
6	
8	
10	
12	
14	

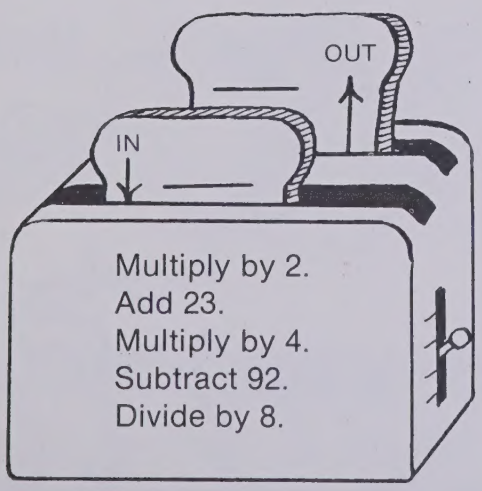


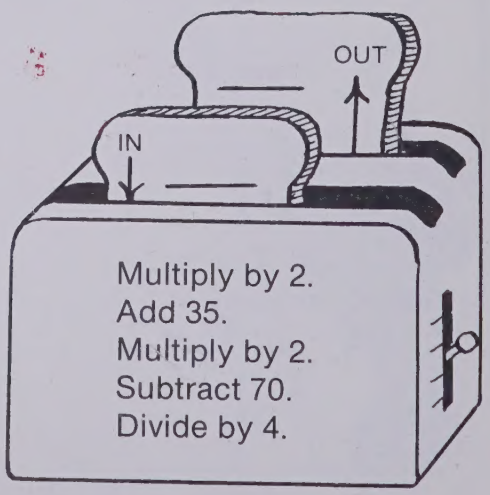
Tricky Toasters

Put any number less than 20 on the piece of bread marked "in." Follow the directions on the toaster and place the "new number" on the toast.









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